

United States
Department of
Agriculture

Economic
Research
Service

Commodity
Economics
Division

Oats

Background for 1990 Farm Legislation

Linwood A. Hoffman
Mark Ash

It's Easy To Order Another Copy!

Just dial 1-800-999-6779. Toll free.

Ask for *Oats: Background for 1990 Farm Legislation* (AGES 89-46)

The cost is \$8.00 per copy. For non-U.S. addresses, add 25 percent (includes Canada). Charge your purchase to your VISA or MasterCard, or we can bill you. Or send a check or purchase order (made payable to ERS-NASS) to:

ERS-NASS
P.O. Box 1608
Rockville, MD 20849-1608.

We'll fill your order via 1st class mail.

Can You Use an Electronic Database?

Electronic databases containing the statistics in this report are also available. The databases are in the form of Lotus 1-2-3 (Release 2) worksheet files on MS-DOS and PC-DOS comparable, two 5.25 inch diskettes.

Write to the above address and ask for *Feed Grain Yearbook* (order #89007, \$35) and the *Feed Grain Data by States* (order #87013, \$55). **Or use our toll-free number, 1-800-999-6779.**

For further information on these databases, write Evelyn Blazer, Room 1232, 1301 New York Avenue, NW, Washington, DC 20005-4788 or phone 202-786-3306.

OATS: BACKGROUND FOR 1990 FARM LEGISLATION. By Linwood A. Hoffman and Mark Ash. Commodity Economics Division, Economic Research Service, U.S. Department of Agriculture. Staff Report AGES 89-46.

Abstract

Oats acreage has trended downward since the 1950's. Domestic production has not met domestic needs, thereby spurring imports. Production has declined due, in part, to current Government programs. Oats have rapidly become a specialty feed mostly for race and pleasure horses. Human food consumption of oats, once a stable component of disappearance, has begun to grow. Exports have become very small. Price support loans have been available to oats producers since 1945. However, deficiency and diversion payments were not made to them until 1983. Program costs in fiscal year 1989 are estimated at \$40 million, about 5 percent of the 1988 crop value.

Keywords: production, domestic use, farm programs, farm returns, oats, prices, program effects, world trade

Foreword

Congress will soon consider new farm legislation to replace the expiring Food Security Act of 1985. In preparation for these deliberations, the Department of Agriculture and many groups throughout the Nation are studying preceding legislation to see what lessons can be learned that are applicable to the 1990's. This report updates Oats: Background for 1985 Farm Legislation, (AIB-473) by Mack N. Leath and William Lin. It was updated by Linwood A. Hoffman and Mark Ash with statistical assistance provided by Andrew Novick. Brenda Toland provided assistance during table preparation. This report is one of a series of updated and new Economic Research Service background papers for farm legislation discussions. These reports summarize in a nontechnical form the experience with various farm programs and the key characteristics of the commodities and the farm industries which produce them. For more information, see the Additional Readings listed at the end of the text.

Contents

Summary	v
Introduction	1
Structure of the Oats Industry	2
Production Characteristics	2
Trends in Domestic Use	7
Trends in World Trade	12
Trends in Prices and Farm Returns	15
History of Oats Programs	18
Programs of the 1940's	18
Programs of the 1950's	18
Programs of the 1960's	19
Programs of the 1970's	19
Programs of the 1980's	20
Effects of Oats Programs	23
Crop Producers	23
Processors	26
Consumers	27
Program Activity and Costs	27
Indirect	29
Additional Readings	30
Glossary	31
Appendix Tables	38

Summary

Federal programs affected oats only indirectly through corn price supports until the late 1940's. Price support loans have been available to oats producers since 1945 and the 1981 farm act provided deficiency and diversion payments to oats producers. Since 1982, the program acreage bases for oats and barley have been combined into a common oats and barley acreage base. The 1985 farm act provided flexibility in setting loan rates but inflexibility with respect to planting decisions. Producers could not respond to market price signals and instead had to stick with the commodities for which they had a program base and the highest target prices.

The principal domestic use of oats is for livestock feed. Oats are a preferred ingredient in feed for horses and mules and many dairy farmers prefer to include some oats in the rations of breeding animals and young stock for the high fiber content. Although oats have a higher protein content than corn, oilseed meals and grain byproduct feeds are more economical sources of protein. However, since the price of oats has risen above the competitive value based on relative feeding value, it has rapidly become a specialty feed, used mostly by the race and pleasure horse industry.

The U.S. role in the world oats market has changed from net exporter to net importer since the 1982 crop year. The U.S. market share of world imports rose to an annual average of 44 percent in 1985-88, largest of all importing countries. Economic advantages, domestic agricultural policy, generally good quality, and a short domestic crop justify oats imports. Most imports originated in Canada, Sweden, Finland, and Argentina.

As the domestic supply of oats declines, market prices have strengthened, making imports more attractive. Oats imports have served as a counterbalancing force to the extent that Government program provisions have provided disincentives for oats production.

Despite the income protection provided by deficiency payments in the 1981 farm act, returns per bushel produced have not kept up with the level experienced in 1981 of \$0.96 per bushel, except for 1988's return of \$1.75 per bushel. Prices received by farmers between 1982 and 1987 were less than the 1981 level, while cash costs per planted acre tended to rise slightly. The return per bushel produced was raised in 1988 with the help of drought assistance provided by the Drought Assistance Act of 1988.

Price and income supports for oats are set in relation to corn on the basis of relative feeding values. These supports provide oats producers with a comparable degree of price and income protection vis-a-vis other feed grain producers. The market price for oats, however, has risen above the level indicated by feeding value relative to corn. Oats production is lagging behind potential domestic consumption.

Deficiency, diversion, and storage payments totaled \$17.3 million in fiscal year 1987. Each participating farm received an average of \$159 in program payments, or nearly 5 cents per bushel of oats produced.

A number of policy issues are identified in this report based on present and past legislation and programs:

- o Since the price of oats no longer reflects its feed value relative to corn, should the price and income support levels be changed to reflect oats' new specialty use value?
- o How can the existing program be changed to allow more flexibility for crop selection? Should the current barley-oats acreage base be expanded into a feed grain base?
- o If oats are in short supply, should the acreage reduction requirement be eliminated?
- o Should the common base acreage provision between oats and barley remain? If so, how can the target prices and loan rates be set on a more equitable basis between these two commodities?

Oats

Background for 1990 Farm Legislation

Linwood A. Hoffman
Mark Ash

Introduction

Oats are grown in most crop-producing areas of the United States, but commercial production is concentrated in the North Central States. Oats have declined rapidly in importance since the mid-1950's when over 40 million acres were harvested. The acreage harvested for grain has recently ranged from 6 million acres to 10 million acres, about 2-3 percent of all principal cropland harvested.

Oats' value of production ranked 16th among major field crops in 1987, at \$606 million. Corn, soybean, hay, and wheat crops were valued at \$14.0, \$11.3, \$9.0, and \$5.5 billion, respectively. Oats are less important as a cash crop since a large proportion of annual production is used for livestock feed and seed on the farms where produced.

The principal domestic use of oats is for livestock feed, although it has recently become a specialty feed for race and pleasure horses. The amount used varies from year to year in response to changes in the relative price and supply of oats compared with other feed grains, principally corn and sorghum. Oats are a preferred feed ingredient for horses and mules. Many dairy farmers prefer to include oats in rations for breeding animals and young stock because of the high fiber content. Other grains are preferred in most livestock feeds, because oats are lower in starch content. However, oats are added to rations for their energy content, if oats are competitively priced with corn. Although oats have a higher protein content than corn, oilseed meals and grain byproduct feeds are more economical sources of protein. Thus, oats are used mainly in rations where additional fiber is needed.

Human consumption of oats has begun to grow, after a long period of stability. After the recent discovery of oats' health attributes, increased preferences for oats food products are contributing to its growth. Any increase in consumption in the past was tied chiefly to growth in population.

Exports have been the smallest and most unstable component of annual oats consumption. Export shipments of oats declined from a record 57 million bushels in 1973/74 to only 1 million bushels in the past several years.

World trade in oats is highly variable and the quantity traded is small relative to other feed grains such as corn. The United States and other nations such as Canada, Argentina, Sweden, Finland, and Australia produce primarily for their domestic market, but some have recently boosted production because of the shortfall in U.S. production. Since the mid-1980's, the United States has become the largest importer of oats.

Annual production of oats is out of balance with domestic needs. Feed sources consumed an average 324 million bushels in the past 3 years, 1986-88, while food and seed uses averaged 79 million bushels, totaling 403 million bushels. However, production has averaged only 326 million bushels.

The Food Security Act of 1985 permitted loan rates to be lowered to more closely reflect market prices. The common base for oats and barley was permitted to continue. Land that could have produced oats has been attracted to more generous program crops, such as barley or corn, or to the conservation reserve program. Despite a reduction in the acreage reduction program requirement and the removal of cross-compliance, oats production has not been able to keep pace with domestic consumption. Thus, domestic processors must seek foreign oats supplies. A return to favorable weather and a provision of the Drought Assistance Act of 1988 that allows producers to plant any portion of their farm acreage base to oats should accommodate greater oats production in 1989.

Structure of the Oats Industry

Substantial structural changes have occurred in the oats industry in recent years. The number of farms producing oats has declined and the larger farms (50 or more acres harvested per farm) are producing a larger proportion of production (table 1). Farms producing oats for grain with sales of \$2,500 or more numbered 463,000, 326,103, and 280,884 in 1969, 1978, and 1982. The number of farms producing oats declined by 39 percent between 1969 and 1982. Although grain consumption levels for feed have declined, the human food component of oats has begun to rise due to increased consumer awareness of oat's health benefits, necessitating a rise in processor capacity. World trade levels are minimal because oats are usually a domestic-oriented industry.

Production Characteristics

Oats, grown throughout the United States (fig. 1), are used for grain, pasture, forage, or as a companion crop or cover crop. White oats are usually grown in northern regions because they thrive in a cool, moist climate. Although popular as a livestock feed, white oats are also used by the oats milling industry for processing into food products. Red oats are grown in areas too warm for satisfactory growth of white oats, such as the South or west coast. The red type is often used for winter pasture of livestock and later harvested for grain. In recent years,

Table 1--Relative importance of oats on U.S. farms, by major producing States, 1978 and 1982

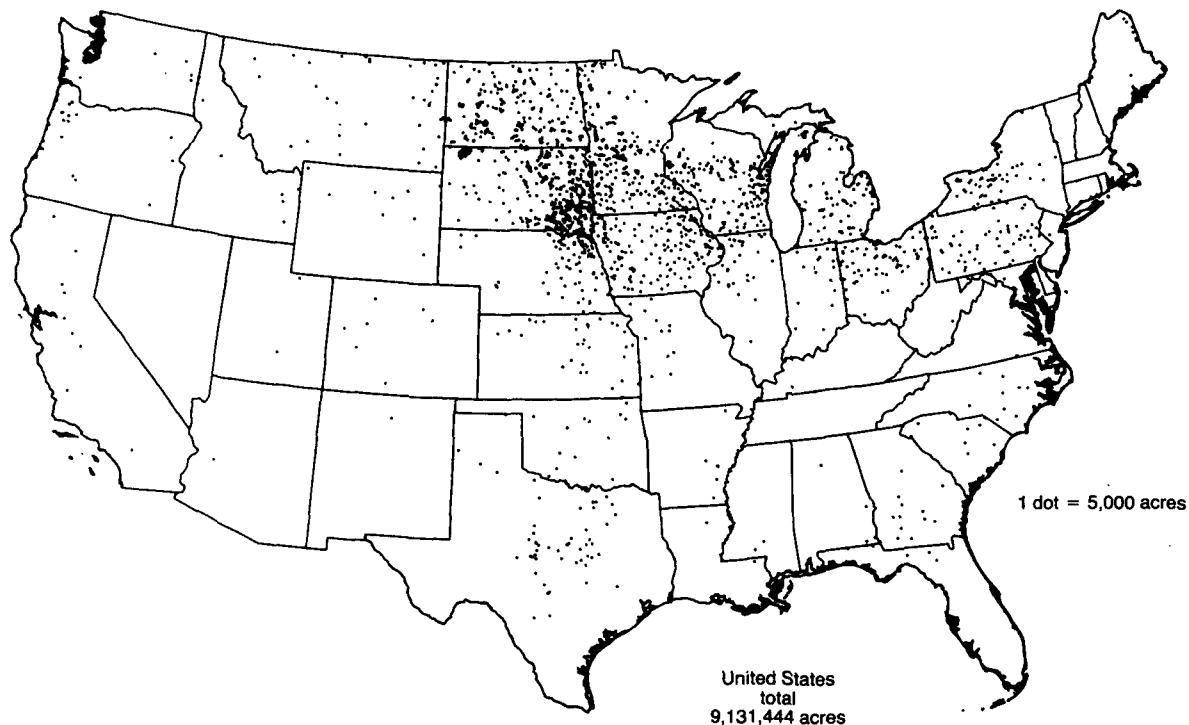
Year/ State	Farms with harvested cropland	Cropland harvested per farm	Farms harvesting oats for grain	Acres of oats harvested per farm	Share of farms harvesting oats	Share of cropland harvested for oats
	<u>Thousands</u>	<u>Acres</u>	<u>Thousands</u>	<u>Acres</u>	- - - <u>Percent</u>	- - -
1978:						
Iowa	111	212	40	22	36.0	3.7
Michigan	60	118	19	22	31.7	5.9
Minnesota	99	207	47	14	47.5	8.7
North Dakota	40	494	16	70	40.0	5.7
Ohio	83	124	20	15	24.1	3.0
Pennsylvania	52	81	21	15	40.4	7.2
South Dakota	35	394	23	87	65.7	14.1
Wisconsin	81	121	52	21	64.2	11.1
Eight States	561	190	238	28	42.4	6.2
United States	1,905	166	326	32	16.8	3.2
1982:						
Iowa	104	233	35	23	33.7	3.3
Michigan	59	229	17	24	28.8	5.5
Minnesota	94	229	39	33	41.5	6.5
North Dakota	36	597	13	74	36.1	4.7
Ohio	78	133	18	17	23.1	2.9
Pennsylvania	50	87	19	16	38.0	7.0
South Dakota	33	440	20	92	60.6	12.5
Wisconsin	76	133	41	22	53.9	8.9
Eight States	530	209	202	34	38.1	6.1
United States	1,810	180	281	33	15.5	2.8

Source: 1978 and 1982 Censuses of Agriculture, U.S. Department of Commerce.

genetic crosses between the two types of oats have made some red oats more like the popular white oats.

The acreage of oats harvested for grain has totaled about 5.6 million acres to 6.9 million acres during the last 3 years, down from about 41 million acres in the mid-1950's. Production is currently concentrated in the Lake States and Northern Plains where the crop competes with barley, wheat, and sunflowers for

Location of oats harvested for grain in the United States, 1982

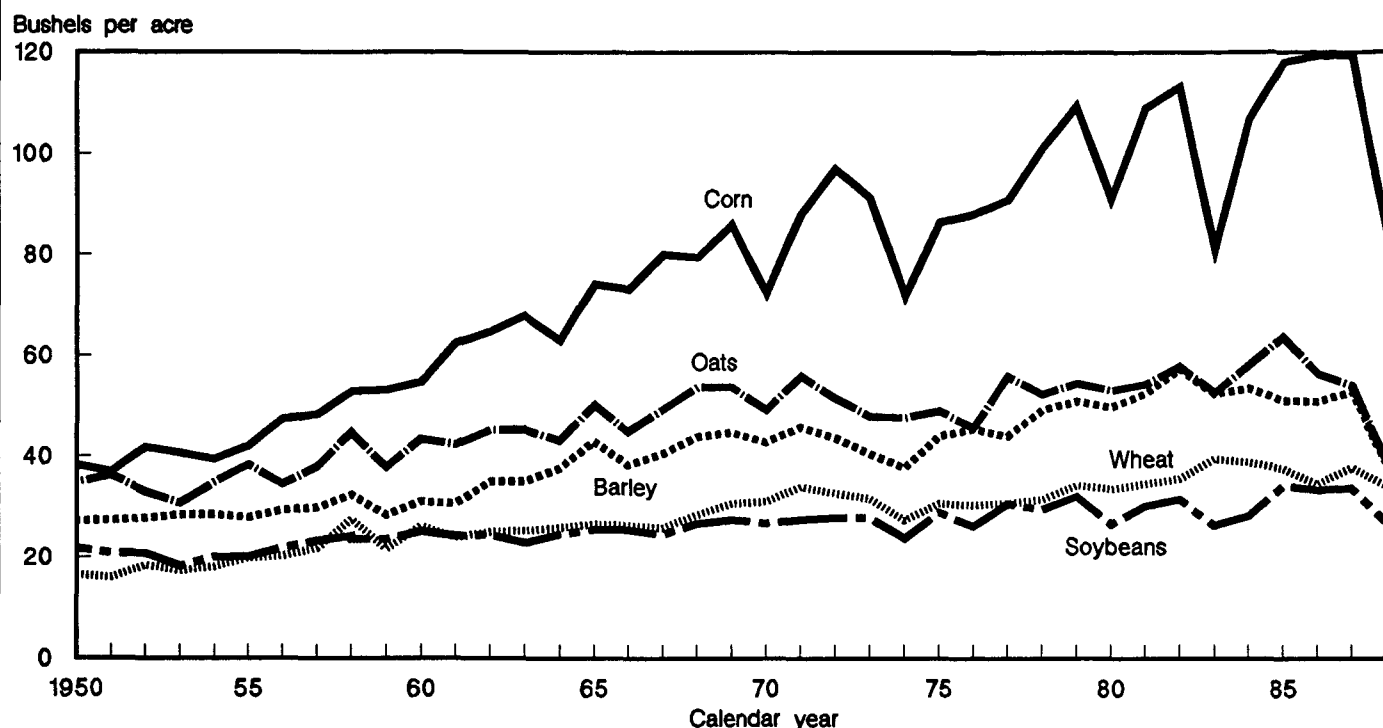


available cropland. Soybeans and corn have replaced oats throughout much of the Corn Belt, reflecting both the greater profit potential for soybeans and corn and a shift from livestock to cash grain farming in this region. Many producers who continue to grow oats are involved in livestock production.

Despite a major shift in oats production from the Corn Belt to the Northern Plains, grain yields rose during 1950-87 by an annual average of 0.5 bushels per acre (fig. 2). Oats yields increased from 34.8 bushels per acre in 1950 to a record 63.7 bushels in 1985. Yields declined in 1986, 1987, and 1988 due to weather-related difficulties such as a wet spring or a dry growing season. The increase in oats yields between 1950-87 is tied for last among the feed grains, wheat, and soybeans. Yields for corn, sorghum, wheat, barley, oats, and soybeans rose by an annual average of 5.6, 5.5, 3.4, 2.5, 1.5, and 1.5 percent, respectively.

The relatively low yield gain for oats is due to several factors. Irrigation is not a common production practice compared with corn. Commercial fertilizer is used on only 35-40 percent of the harvested acres. Oats acreage has shifted from high- to low-quality land in the Corn Belt and Great Plains regions due to the expansion of soybean and wheat acreage. And, oats' decline as a major feed grain has led to reduced research on plant breeding and production practices. Only one private company currently conducts oats breeding research, while at least one other company provides funds for similar research to selected Land Grant

Figure 2
Yield per acre, major crops



Universities. Perhaps the future level of research activity could increase, given the renewed interest in oats' food use.

Cropland planted to oats declined by an annual average of 712,763 acres per year between 1950 and 1987. Planted acres reached a plateau in the mid-1950's, averaging about 44 million acres, then declined sharply to a low of 12.4 million acres in 1984. Acres planted to sorghum and barley also trended downward during this period. In contrast, acres planted to wheat and soybeans rose by 449,000 acres and 1.7 million acres per year. Corn acreage was fairly constant from 1950 to 1960, but increased significantly from 1961 to 1987. Oats planted for harvest competes with barley, wheat, soybeans, corn, and sunflowers for available acreage.

Factors partially responsible for the decline in oats acreage are the decline in profitability in relation to other cash crops such as soybeans or corn, the decline in oats' use as a feed ingredient, the decline in use within a crop rotation, and the increase in farm enterprise specialization for both crops and livestock. For example, the increased use of corn and soybean meal in livestock rations has contributed to the decline in oats' feed use. A rise in the use of herbicides has lessened the need for oats in crop rotations. The use of large-scale machinery enabled producers to avoid the spring labor constraint, thereby reducing the need for oats. In some areas, profitability of growing soybeans compared with oats has contributed to a change in cropping patterns.

Government programs recently discouraged production of oats. Since 1982, the program acreage bases for oats and barley have been combined into a common oats and barley acreage base. On this base, a producer could plant any combination of oats and barley on the permitted acreage. The result has been to reduce oats acres harvested in favor of barley. This shift in acreage was due to higher returns of barley production resulting, in part, from Government programs. The Food Security Act of 1985 has reduced oats production through the conservation reserve program, which removes the least-productive land from harvested acreage. In many instances, this land had been planted to oats.

Based on recent oats consumption levels and expected increases in specialty feed and food uses, oats acreage harvested for grain should increase and range between 8 and 10 million acres by the mid-1990's. Yields may increase slightly and average about 58 bushels per acre during this period. Production is expected to range from 464 to 580 million bushels during 1991-95. In order to achieve this production, changes would be needed in the present set of farm programs so that producers can better respond to market price signals. Without such changes, this production level appears unlikely and processors would have to rely upon imports.

In 1982, the 281,000 farms harvesting oats represented 15.5 percent of the 1.8 million U.S. farms with harvested cropland (table 1). Almost three-fourths of those farms were in the eight leading oats-producing States. The share of harvested cropland devoted to oats production in those States ranged from 3 percent in Ohio to 13 percent in South Dakota. Oats accounted for about 3 percent of the Nation's harvested cropland.

Average acreage of oats harvested per farm in the eight leading States ranged from 16 acres in Pennsylvania to 92 acres in South Dakota. Oats are a supplemental crop grown to meet special needs such as farm feeding, a local oats market, or rotational purposes. Government programs that affect the oats industry would have the greatest effect on farms in North and South Dakota.

Since payments are proportional to the production base, the distribution of program payments among oats producers depends to a large extent on the proportion of total production controlled by larger producers. In 1982, 49,665 oats producers harvested 50 acres or more (table 2). Thus, about 17-18 percent of all producers would receive about 52-54 percent of the benefits.

The tenure system for farmers growing oats for grain ranged from full owners to tenants and changed only slightly between 1978 and 1982. Full owners accounted for 43 percent of all farms and 32 percent of the production in 1982, compared with 45 percent of all farms and 33 percent of production in 1978. Part owners accounted for 45 percent of all farms and 56 percent of all production in 1982, up slightly from 1978. The remaining 12

Table 2--Number of oats-producing farms and production by size group,
1978 and 1982

Year/acres of oats harvested for grain	Oats-producing farms		Oats production	
	<u>Number</u>	<u>Percent</u>	<u>1,000 bu.</u>	<u>Percent</u>
1978:				
1-14	125,944	38.6	52,896	10.2
15-24	73,938	22.7	73,596	14.2
25-49	70,980	21.8	125,298	24.1
50-99	36,266	11.1	119,406	23.0
100-249	16,785	5.1	110,080	21.2
250-499	1,890	.6	27,895	5.4
500 or more	300	.1	9,673	1.9
All farms	326,103	100.0	518,844	100.0
1982:				
1-14	106,272	37.8	47,149	9.3
15-24	63,224	22.6	65,784	13.0
25-49	61,723	22.0	117,276	23.2
50-99	31,875	11.3	116,202	23.0
100-249	15,793	5.6	117,073	23.3
250-499	1,666	.6	29,092	5.8
500 or more	331	.1	12,279	2.4
All farms	280,884	100.0	505,855	100.0

Source: 1978 and 1982 Censuses of Agriculture, U.S. Department of Commerce.

percent of farmers were tenants, accounting for 11 percent of total oat grain production, about the same as in 1978.

Trends in Domestic Use

The relative importance of alternative uses and the marketing process of oats are illustrated in figures 3 and 4. The quantity of U.S. oats consumed as grain has steadily declined since the 1950's. Most of the reduction in use has been in onfarm feeding. Despite this decline, about 60 percent of U.S. oats production is consumed on the farms where produced. The consumption of oats by off-farm feed sources such as feed manufacturers or livestock and poultry producers has also declined, but less severely than onfarm use. In recent years, feed use of oats accounted for 71-83 percent of total disappearance, down from 90 percent in 1950 (fig. 4). Food use of oats has been a small and steady component of consumption but recently has risen to 15-25 percent of total

Figure 3
U.S. oats consumption

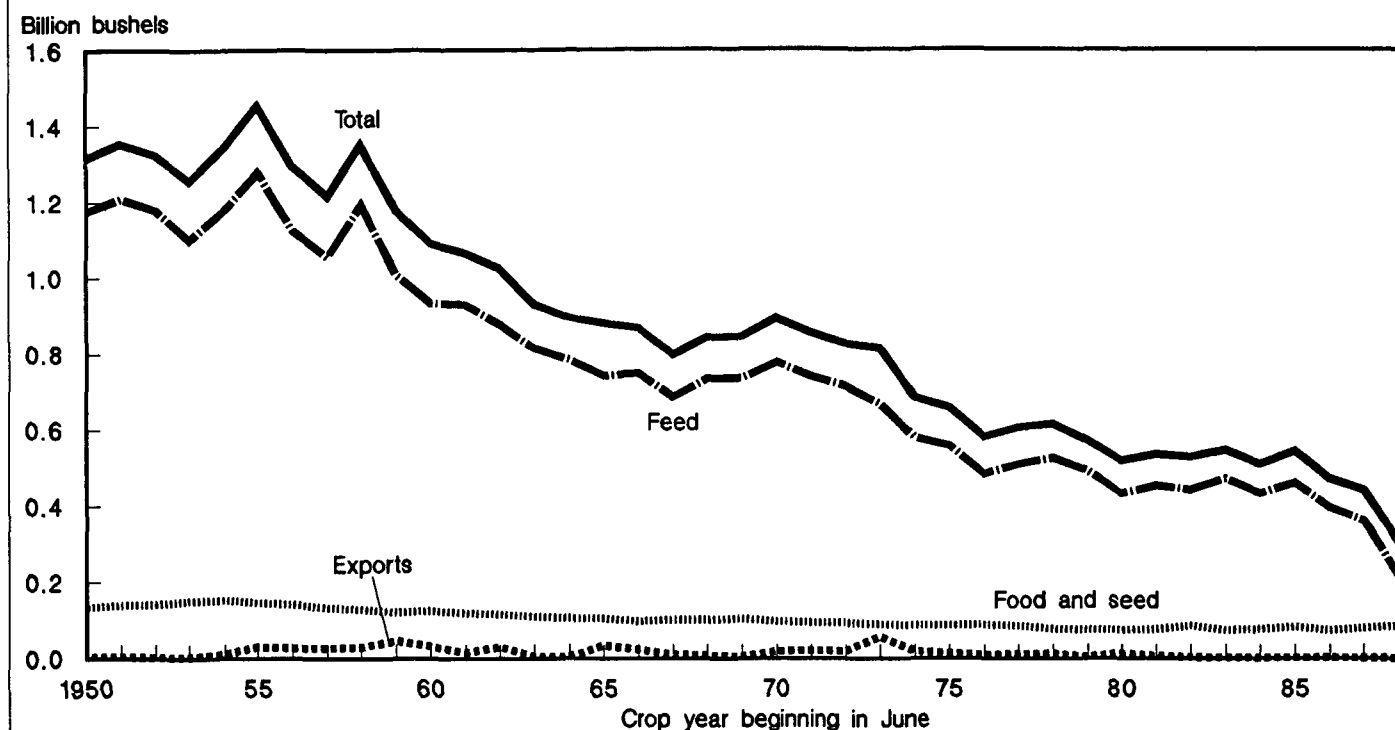
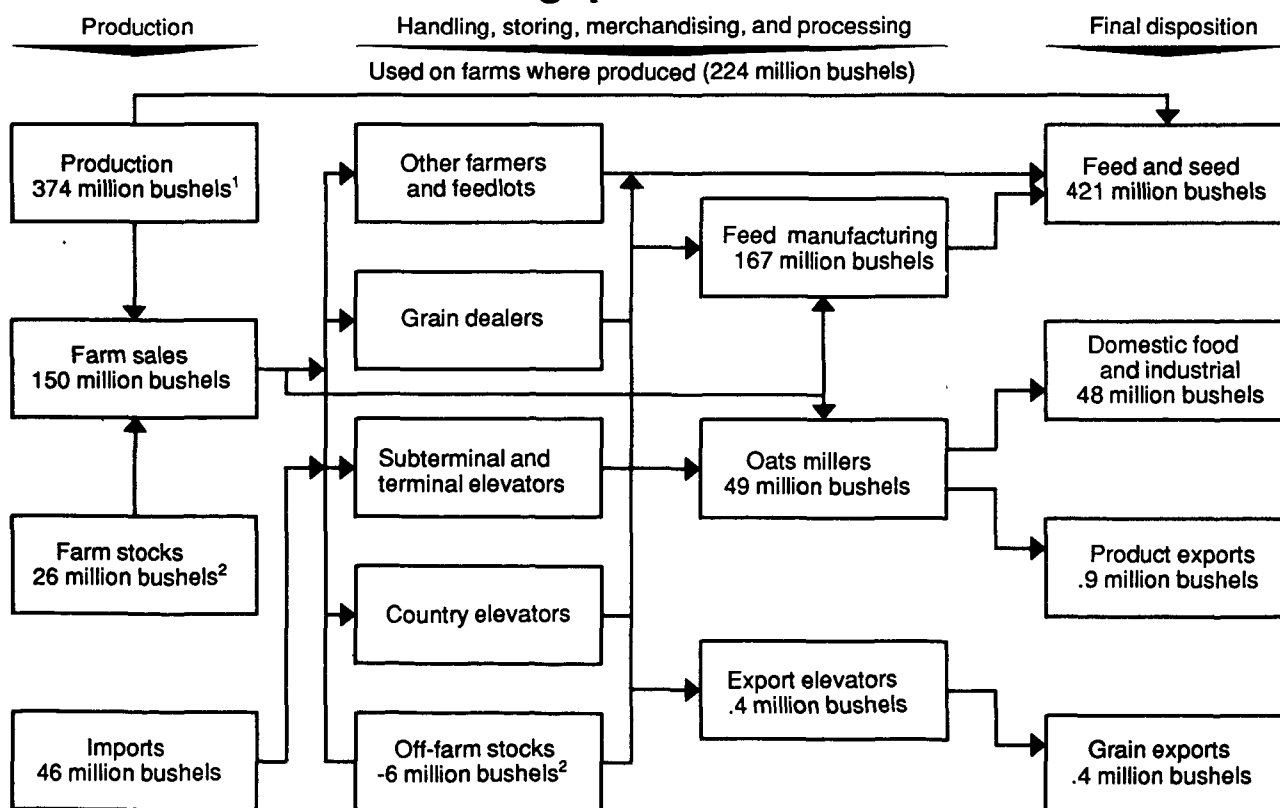


Figure 4
The U.S. oats marketing process, 1987-88



1/ 60 percent of production was used on the farm.
2/ Change between beginning and ending stocks.

consumption. Seed use has declined with the drop in acreage planted. Exports of U.S. oats have been relatively small and highly variable.

Feed

The feed manufacturing industry has been a major user of oats. Feed use of oats in the 1980's (both onfarm and off-farm) ranged from 215 million bushels to 466 million bushels, less than 50 percent of that fed in the 1950's. In 1984, the industry used about 1.5 million tons of oats in manufacturing animal feeds. This was substantially less than the 32.2 million tons of corn used by the industry and the smallest quantity of the four major feed grains. Oats represents about 3.3 percent of the whole grain processed by feed manufacturers in 1984, down from 5 percent in 1975.

Oats are principally fed to dairy cattle, horses, mules, replacement layers, and turkeys, with lesser quantities fed to hogs, beef cattle, and sheep. Bulky and high in fiber, oats are an excellent conditioning feed for horses and cattle (especially breeding stock) because oats form a loose mass in the stomach. Some grains, such as wheat, pack the stomach and cause digestive disorders. Oats have more protein than corn, but the energy value is less. Therefore, oats are not as beneficial as corn in finishing or fattening animals, but oats are an excellent starter ration for some animals such as dairy cattle or hogs. Also, oilseed meals and byproduct feeds are more economical sources of protein than oats. As a result, oats are primarily used as a fiber feed.

Competition among feed ingredients depends on relative prices and relative feed value. Values for oats on a bushel-for-bushel basis differ from a pound-for-pound basis because of the differences in legal weights per bushel (56 pounds for corn and sorghum and 32 pounds for oats). Average feed values for major grains averaged across all livestock classes within a reasonable range of balanced rations are presented below:

	<u>Pound for pound</u>	<u>Bushel for bushel</u>
	<u>Percent of corn's feed value</u>	
Corn	100	100
Sorghum	95	95
Barley	90	77
Oats	90	51
Wheat	105	113

Feed use of oats used to be positively related to the number of grain-consuming animal units (GCAU). However, this relationship no longer appears to exist. For example, between 1975 and 1988, oats used as livestock feed declined from 8.1 million metric tons to 3.1 million metric tons, while GCAU's rose from 72.6 million

units in 1975 to 79.3 million units in 1979, but then declined to 76.4 million units in 1988 (table 3).

The primary reason why this relationship no longer holds is that oats prices are beginning to exceed their feed value, especially since September 1986. There are several reasons for this change in relationship. The corn price level was reduced in September 1986 as the Food Security Act of 1985 permitted loan rates to be lowered and generic certificates to be used. Oats production has declined and prices have risen as the returns per acre to producers are not as great as for many competing crops. Accordingly, oats have rapidly become a specialty feed for mostly race and pleasure horses. Regular feed use of oats has declined as other feed ingredients are more readily available and cheaper.

Food

Food use of oats has recently begun to increase due to the widespread knowledge of the health benefits associated with oats consumption. Food consumption had been a stable component of oats disappearance, ranging in absolute value from 32.8 million bushels in 1953 to about 90 million bushels in 1989. The food component's proportion of total consumption grew from 2.4 percent in 1955 to a projected 17 percent in 1988. In recent years, the per capita consumption of oats was slightly above 3 pounds per year, much less than the 114-120 pounds per year for wheat. Food consumption of oats depends more on population and tastes and preferences than on price. The food processing industry is expected to process 90 million bushels of oats in 1989/90 and 130 million bushels by 1991/92, according to industry sources. Unlike other small grains, the oat hull is firmly attached to the kernel and can be removed only by milling. Once the hulls are removed, the kernel is processed into several edible products including rolled oats, steel-cut oatmeal, ground oatmeal, and instant oats. The hulls removed in the milling process are sold to the feed manufacturing industry.

Oats food products include oatmeal, oat flour, natural cereals, meat product extenders, cookies and breads, granola, oat bran, and baby food. Oats flour is used in certain cosmetics and cereal applications and as an antioxidant in food products. Oats are principally consumed as a breakfast food or snack product. Although published data are not available, industry sources estimate that 50 percent of the total is used as standard oatmeal, 35 percent as instant oatmeal, 5-10 percent as oat flour, and 5-10 percent as snack products.

Recent medical research has shown that certain fibrous plant materials in the diet can lower serum cholesterol concentrations. The fibers, however, must be water soluble. Oat bran is water soluble, but wheat bran is not. Water-soluble dietary fibers also lower post-meal blood glucose levels in insulin-dependent diabetics.

Table 3--Feed use and animal numbers, marketing years, 1975-88

Item	Unit	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89 ^{1/}
Feed and residual use:															
Oats	Mil. m.t.	8.1	7.0	7.4	7.6	7.1	6.3	6.6	6.4	6.8	6.3	6.7	5.7	5.2	3.1
Barley	do.	4.1	3.8	3.9	4.7	4.4	3.8	4.3	5.2	6.2	6.6	7.2	6.5	5.6	5.2
Sorghum	do.	12.6	10.4	11.4	13.7	12.6	8.2	10.6	12.6	9.8	13.7	16.9	13.6	14.3	13.1
Corn	do.	91.2	91.2	94.4	108.3	115.6	105.6	105.9	114.8	97.0	103.6	104.0	119.7	120.3	109.2
Total feed grains	do.	116.0	112.1	117.1	134.3	139.7	123.9	127.4	139.0	119.8	130.2	134.8	145.5	145.4	130.6
Wheat and rye	do.	1.7	6.8	4.5	3.3	2.8	4.4	3.9	5.5	10.3	11.4	7.6	11.6	8.3	7.6
Total grains	do.	117.7	118.9	121.6	137.6	142.5	128.3	131.3	144.5	130.1	141.6	142.4	157.1	153.7	138.2
Byproduct feeds ^{2/}	do.	33.8	31.0	33.8	37.8	38.3	36.2	33.7	34.5	33.4	37.6	36.1	36.9	38.7	37.4
Total grains and byproduct feeds	do.	151.5	149.9	155.4	175.4	180.8	164.5	165.0	179.0	163.5	179.2	178.5	194.0	192.4	175.6
Animal numbers:															
GCAU ^{3/}	Mil. units	72.6	74.1	75.7	78.3	79.3	77.6	74.3	76.4	75.9	76.5	74.4	74.2	76.6	76.4
Prices:															
Corn	Dols./bu.	2.54	2.15	2.02	2.25	2.48	3.12	2.47	2.55	3.21	2.63	2.23	1.50	1.94	2.55
Sorghum	do.	2.37	2.03	1.82	2.01	2.35	2.91	2.24	2.47	2.74	2.32	1.93	1.37	1.70	2.35
Barley	do.	2.42	2.25	1.78	1.92	2.27	2.79	2.48	2.18	2.47	2.29	1.98	1.61	1.81	2.80
Oats	do.	1.46	1.56	1.09	1.20	1.33	1.72	1.88	1.49	1.62	1.67	1.23	1.21	1.56	2.67
Wheat	do.	3.56	2.73	2.33	2.97	3.80	3.99	3.69	3.45	3.51	3.39	3.08	2.42	2.57	3.72
Feeding rate: ^{4/}	M.t./GCAU	2.09	2.02	2.05	2.24	2.28	2.12	2.22	2.34	2.15	2.34	2.40	2.61	2.51	2.30

^{1/} Estimated.^{2/} Byproduct feeds include oilseed meals, animal protein feeds, grain protein feeds, and other byproduct feeds.^{3/} Grain-consuming animal units (GCAU) are a weighted average of the number of livestock and poultry fed during the feed year converted to feed unit equivalents.^{4/} Total grains and byproduct feeds per GCAU.

Thus, oat bran or whole oats is beginning to play a larger role in improving health through diet. Oats consumption by humans appears to be increasing, as U.S. diets seem to be shifting toward cereal-based foods and away from fatty, high-protein, animal-based foods.

Seed

Seed use is a relatively small proportion of total disappearance, ranging from 7-9 percent of annual disappearance during 1950-88. Since the mid-1950's seed use has decreased due to the decline in acres planted. The aggregate seeding rate ranges from 2-3 bushels per acre. Seeding rates differ depending upon the crop's intended use.

Exports

Oats exports have been a low-volume component of total disappearance. Quantities exported have ranged from 1 million bushels to 56.7 million bushels during 1950-88. Recently, the proportion of total disappearance was less than 1 percent. Oats exports are unlikely to increase until domestic supplies become more ample.

Trends in World Trade

World oats trade averaged 1.4 million metric tons (includes intra-European Community-12 trade) each year between 1960-88 with a range of 1-2 million metric tons, about 2-4 percent of world production. Most countries produce oats for their domestic market. Higher U.S. prices have recently encouraged some additional foreign production for grain. The extent of trade also depends on the availability of other feed grains in the world market. Oats are less likely to be traded than other grains because their light weight per unit volume characteristics make transport costs expensive relative to the commodity's value. However, food use and specialty feed uses appear to justify some of the current levels of world trade.

Major oats-exporting countries have been Sweden, France, Australia, Finland, Argentina, United States, and Canada (table 4). Together, these countries exported an annual average of 88 percent of the world's oats in 1980-88. Between 1960-88, exports from the United States, Australia, and Argentina declined, while exports from Sweden, Finland, Canada, and France increased. Exports as a share of production have been low for the larger producing countries, such as the USSR, United States, and Canada, but much greater (8-20 percent) for Australia, Sweden, Finland, France, and Argentina.

U.S. exports to the world market have been very small in the last 9 years, especially the last 4 (table 4). Higher U.S. prices, lack of available supplies, and a periodic stronger U.S. dollar have made U.S. exports less attractive. The U.S. market share of world oats exports averaged 16 percent in the 1960's, rose to 22 percent during 1970-74 when the Soviet Union imported a large

Table 4--World oats trade by major trading countries

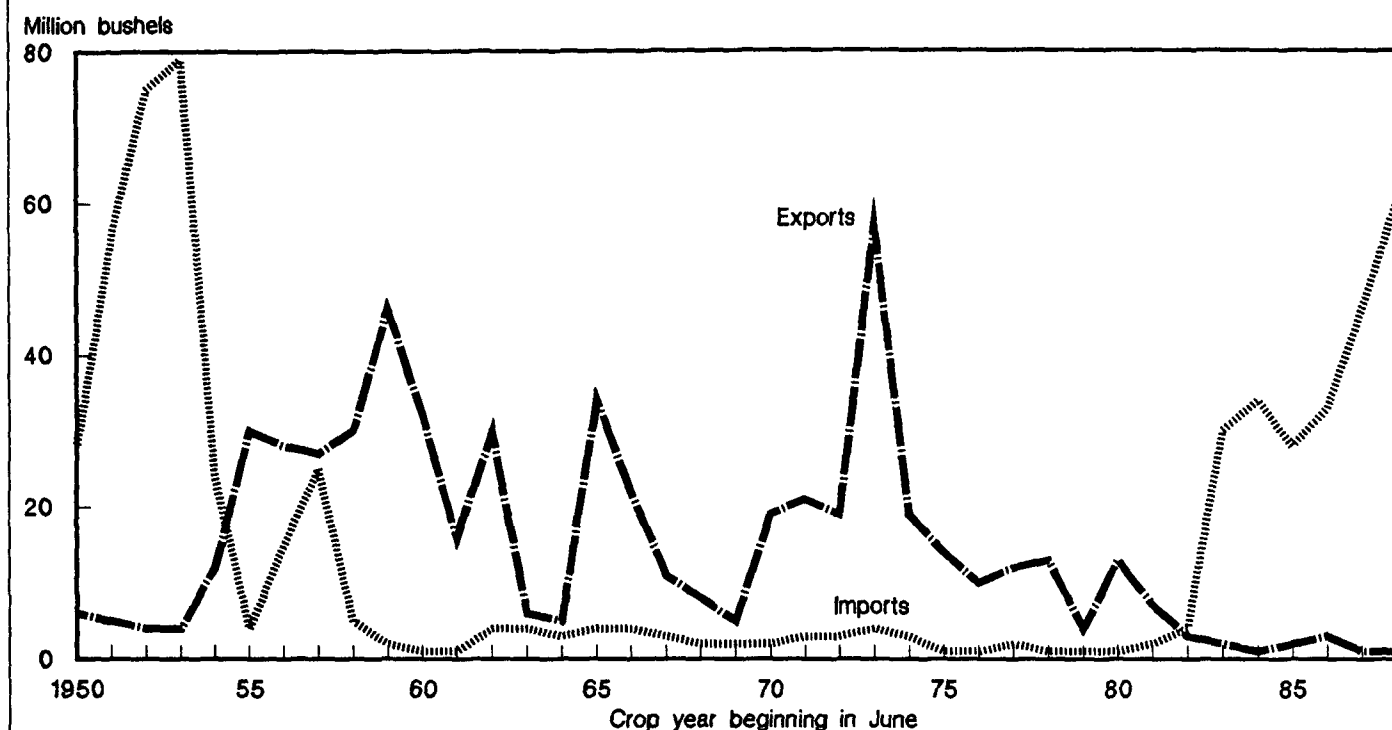
Country	Average market share					
	1960-64	1965-69	1970-74	1975-79	1980-84	1985-88
<u>Percent</u>						
Exporters:						
Canada	13.0	8.7	6.1	13.1	5.4	20.5
Sweden	6.3	11.3	15.5	10.4	24.1	19.1
Australia	25.0	22.5	18.6	16.3	15.6	18.9
France	1.6	8.3	8.9	13.3	20.7	13.8
Argentina	22.2	16.1	9.3	15.0	6.7	8.0
Finland	.2	.7	4.8	2.0	10.1	5.8
United States	16.7	15.1	21.7	7.3	5.8	1.9
Other	15.0	17.3	15.1	22.6	11.6	12.0
<u>1,000 metric tons</u>						
Total world	1,344.4	1,244.0	1,702.2	1,450.6	1,367.8	1,450.5
<u>Percent</u>						
Importers:						
United States	3.2	3.4	1.4	1.5	17.9	44.6
Germany, Fed. Rep. of	30.8	39.8	31.0	26.8	16.9	10.5
Japan	.5	3.5	10.6	13.3	9.2	7.0
USSR	0	0	10.6	9.8	6.4	7.0
Switzerland	10.9	14.0	10.9	11.7	10.3	6.8
Netherlands	16.6	7.4	4.8	3.4	3.4	4.7
Belgium/Luxembourg	3.9	7.2	3.8	5.8	4.4	4.2
Italy	12.1	19.0	11.9	9.1	7.2	3.3
Other	22.0	5.7	15.0	18.6	24.3	11.9
<u>1,000 metric tons</u>						
Total world	1,173.0	1,141.0	1,559.0	1,255.8	1,237.6	1,429.3

Source: U.S. Department of Agriculture, Foreign Agricultural Service, "Commodity Production, Supply, and Disposition Database." Unpublished monthly computer printouts, March 1988.

amount of U.S. oats, but dropped to an average 5 percent during 1980-85.

Most of the major U.S. grains depend upon exports to clear their market. In contrast, the export market for the U.S. oats industry has been relatively small in recent years (fig. 5). A surge in 1973 occurred because exportable supplies of oats were available and world supplies of competing grains were tight. In 1974, exports returned to the 1972 level of 19 million bushels. Oats exports have since declined to very low levels.

Figure 5
U.S. Oats imports and exports



The U.S. role in the world oats market has changed from net exporter to net importer, shifting after the 1982 crop year. The U.S. market share of world imports rose to an annual average of 45 percent between 1985-88, largest of all importing countries. Economic advantages, domestic agricultural policy, generally good feed quality, and a short domestic crop justify oats imports. Most of these imports have originated in Canada, Sweden, Finland, and Argentina. U.S. harvests in 1983 and 1986 through 1988 were less than expected due to weather conditions, and quality was adversely affected. For 1984-85, domestic oats production seemed adequate to handle domestic consumption, but the world economic environment created a situation whereby foreign oats could be imported into the United States at competitive prices. Traditional oats importing countries have been Japan, Federal Republic of Germany, Italy, Switzerland, the Netherlands, Belgium/Luxembourg, and the Soviet Union (table 4).

Variation in the annual volume of U.S. imports in the 1950-88 period is illustrated in figure 5. The importance of imports has been growing. Between 1950 and 1986, they were a small percentage of supply, 1-5 percent. However, the 46.3 million bushels imported in 1987 were equal to 9 percent of supply and for 1988 the expected 60 million bushels will equal 16 percent of supply. In the past, Canadian oats would enter the U.S. markets when U.S. prices rose above those of Canada. With the Canadian and U.S. free trade agreement, major changes are not anticipated in the importation of Canadian oats. However, as of August 1, 1989, the Canadians will remove the marketing of oats from their

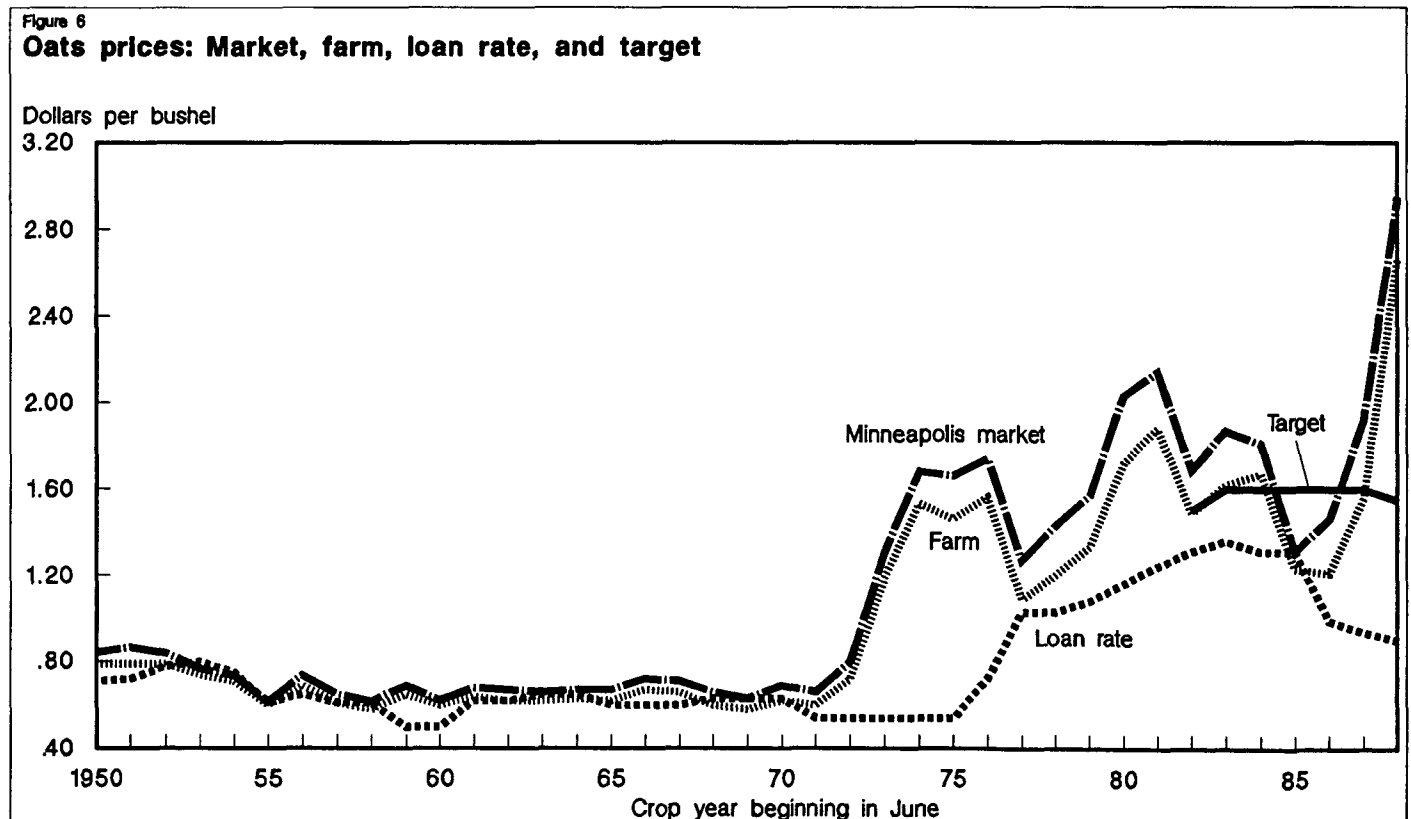
Wheat Board and turn it over to private industry which would appear to ease the process of importing Canadian oats.

The relatively small quantities of oats traded in world markets, compared with other grains such as corn, and the large variability of trade volume suggest that the export market is not a dependable market for world oats producers. However, since U.S. prices have been strong, world producers have responded by increasing exports. Nevertheless, reliance on a thinly traded world market to compensate for U.S. crop shortfalls is risky but necessary.

Trends in Prices and Farm Returns

In the late 1950's and 1960's, average prices received by farmers for oats were very stable, ranging from 57.8 cents per bushel in 1958/59 to 66.6 cents in 1966/67 (app. table 3). These prices reflected the price support loan rate which ranged from 61 cents to 60 cents per bushel. A loan rate of 54 cents per bushel was in effect from 1971/72 through 1975/76. The loan rate had no bearing on market prices during this period because oats prices rose in response to high prices for corn and other grains (fig. 6).

The support price was raised considerably in 1976 and 1977, exceeding \$1 per bushel for the first time in 1977. The higher rate appeared to moderate the sharp decline in market prices that occurred in the summer of 1977 (fig. 6). The growing export



demand for corn in the late 1970's resulted in higher corn prices. Oats prices followed the corn market but rose to \$1.88 per bushel in 1981 due to a tight oats supply situation (fig. 6).

Loan rates for oats were lowered in 1986 through 1988 as a result of the Food Security Act of 1985. Rates dropped from \$1.31 per bushel in 1985 to \$0.99 per bushel in 1986 and declined to \$0.90 in 1988. Despite the downward adjustment in support prices, market prices remained well above support levels primarily because of the tight supply situation.

The relatively tight supply situation for oats in the 1976, 1981, 1984, 1986, 1987, and 1988 marketing seasons strengthened oats prices relative to other feed grains and weakened the traditionally strong feed price relationship between market prices of corn and oats (fig. 7). In recent years, this relationship no longer holds since it has been much higher than 51.2 percent of corn's price. During 1988, the farm price received was projected to be \$2.67 per bushel, slightly above the projected corn price of \$2.50 per bushel. The drought of 1988 was devastating to the oats crop with production dropping to a record low of 219 million bushels.

Despite the alleged income protection provided by deficiency payments in the 1981 farm act, returns per bushel produced since 1981 have not kept up with the \$0.96 per bushel level experienced in 1981, excluding 1988's return of \$1.75 per bushel (table 5). Between 1982 and 1987, prices received by farmers were lower than

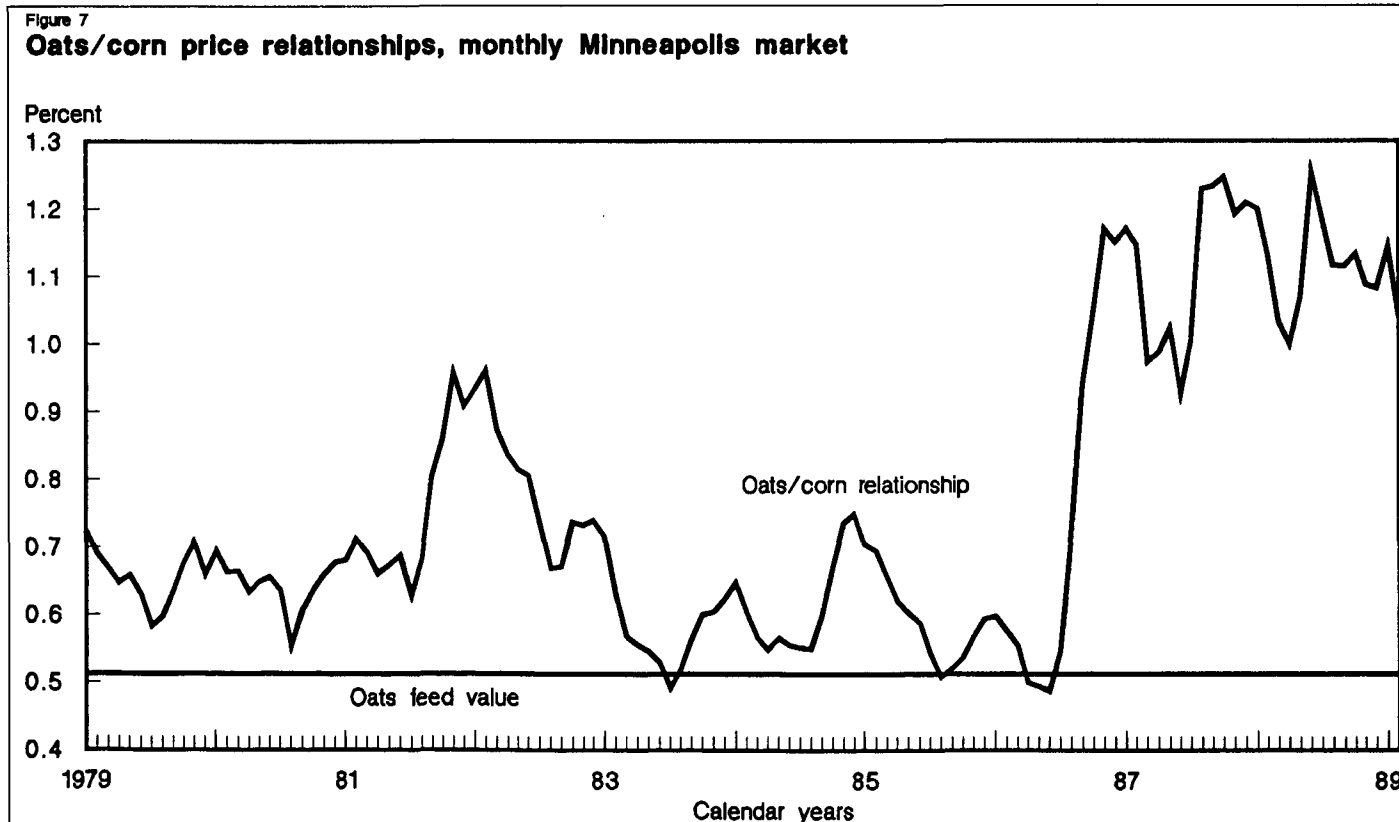


Table 5--Oats: Value of crop, expenses, and returns above cash expenses on acreage harvested for grain, 1975-88

Crop year	Value of products 1/				Total cash expense	Returns above cash expenses			
	Grain	Straw	Govt. pymts.	Gross		Gross		Per bushel	
						Nominal	\$1982	Nominal	\$1982
- - - - - <u>Million dollars</u> - - - - -									
1975	924	389	0.3	1,313.3	515	798.3	1346.2	1.25	2.11
1976	835	368	0	1,203.0	444	759.0	1202.9	1.40	2.22
1977	823	518	0	1,341.0	555	786.0	1167.9	1.04	1.55
1978	689	362	7.2	1,056.2	527	529.2	733.0	.91	1.26
1979	714	207	6.2	927.2	530	397.2	505.3	.75	.95
- - - - - <u>Dollars</u> - - - - -									
1980	813	236	2.7	1,051.7	585	466.7	544.6	1.02	1.19
1981	954	284	-2.5	1,235.5	747	488.5	519.7	.96	1.02
1982	883	261	.5	1,144.5	793	351.5	351.5	.59	.59
1983	794	216	5.9	1,015.9	679	336.9	324.3	.71	.68
1984	798	170	7.8	975.8	642	333.8	309.9	.70	.65
- - - - - <u>Million dollars</u> - - - - -									
1985	646	195	.3	841.3	580	261.3	235.6	.50	.45
1986	471	139	17.9	627.9	462	165.9	145.7	.43	.38
1987	606	159	17.3	782.3	518	264.3	224.6	.71	.60
1988 2/	562	220	40.0	822.0	440	382.0	314.1	1.75	1.44

1/ Includes deficiency, diversion, disaster, and storage payments.

2/ Preliminary.

in 1981, while cash costs per planted acre tended to rise slightly. Returns per bushel produced rose in 1988 with the help of payments provided by the Drought Assistance Act of 1988.

History of Oats Programs

Oats were not designated as a basic commodity in the Agricultural Adjustment Act of 1933 and other legislation and therefore did not receive direct support during the 1930's. However, indirect price assistance was received through price supports for corn, the major feed grain and a designated basic commodity. Oats first became eligible for direct support in 1945. The Secretary of Agriculture had discretionary authority to support oats prices in 1945-55 and 1958. Price supports for oats became mandatory with the Agricultural Act of 1956. Support was mandatory in 1956-57 and 1959-89. Prices were supported by loans in 1945-46, by loans and purchase agreements in 1947-63, and by loans and purchases in 1964-89. Government outlays for oats are minor compared with the other feed grains, wheat, and soybeans. Participation in Government programs by oats producers has never been very large because of large onfarm use of oats or lack of economic incentives.

Programs of the 1940's

During the 1940's, agricultural policy centered on high support rates to encourage production of agricultural commodities during and after World War II. The Steagall Amendment of 1941 gave the Secretary of Agriculture discretion to authorize price supports for nonbasic commodities at not less than 85 percent of parity. However, oats were not supported until 1945.

The Agricultural Act of 1948 continued mandatory price support at 90 percent of parity for the 1949 crops of wheat, corn, rice, peanuts used as nuts, cotton, and tobacco marketed before June 30, 1950, if producers had not disapproved marketing quotas. If funds were available, price supports were authorized for other commodities, including oats, at a fair relationship with other commodities receiving support.

The Agricultural Act of 1949 authorized price supports for basic commodities at 90 percent of parity through 1950. Support prices for nonbasic commodities, including oats, were generally set at lower levels during 1949 and 1950 than in 1948, whenever permitted by law.

Programs of the 1950's

The high support levels established in the 1949 Act were continued into the early 1950's. These high levels were justified based on food and fiber needs during the Korean war when most of the Commodity Credit Corporation-owned stocks acquired from the 1948 and 1949 crops were sold. Despite these high support rates, only a modest amount of oats went into Commodity Credit Corporation inventories.

The Agricultural Act of 1954 established commodity price supports on a flexible basis, from 82.5-90 percent of parity for 1955 and 75-90 percent thereafter, excluding tobacco. The transition to flexible support was to be eased by acreage set asides for the basic commodities.

Price supports for oats became mandatory with the Agricultural Adjustment Act of 1956. The support level was 76 percent of parity in 1956 and not less than 70 percent of parity in 1957. The Agricultural Act of 1958 set a price support for oats that would be fair and reasonable in relation to the support level for corn. Subsequent legislation affecting corn price support made the same proportional requirements for oats and other feed grains.

Programs of the 1960's

Low farm income, excessive production, and large Government stocks of grain were prevalent at the close of the 1950's. Emergency feed grain legislation was consequently enacted in 1961 providing higher support levels for farmers who voluntarily reduced acreage of corn and grain sorghum by 20 percent or more. The voluntary diversion programs of the 1960's were generally aimed at commodities such as wheat, cotton, corn, sorghum, and sometimes barley. Oats were not included. Direct payments were also made on some commodities, such as corn and sorghum, but not oats.

The Agricultural Act of 1965 permitted farmers with a history of oats or rye acreage to ask for an oats-rye base. Farmers participating in both the wheat and feed grain programs could substitute wheat on the oats-rye base after meeting a diversion percentage. The purpose of this program was to provide an opportunity to some farmers to increase wheat acreage from land that had been in oats or rye in the 1950's. This act covered the 1966-70 marketing years.

Programs of the 1970's

The Agricultural Act of 1970 introduced set asides but eliminated the need for the oats-rye base because wheat acreage was no longer constrained by an allotment. The act's feed grain program covered corn, grain sorghum, and barley if designated by the Secretary of Agriculture. The act also continued a two-tiered system of supports with minimum loan levels and an additional price support payment. Rye and oats farmers were eligible for loans but not price support payments.

The Agriculture and Consumer Protection Act of 1973, effective for the 1974-77 crops, emphasized holding down price increases and expanding production in response to rising world demand for food and fiber. A new concept of target prices was introduced to replace price supports, but oats were excluded. Target prices covered corn and sorghum and, if designated by the Secretary,

barley. The 1973 Act had no specific provision for oats other than mandatory price support loans.

The Food and Agriculture Act of 1977 mandated target price protection for corn and sorghum but made target prices optional for oats and barley. The target price level for sorghum and barley was established as a fair and reasonable rate in relation to corn. Target prices were based on costs of production. Oats were not designated for target price protection but were eligible for the 3-5 year farmer-owned reserve which provided separate loan rates and a reserve storage payment, initially set at \$0.19 per bushel per year and later changed to \$0.20. The act authorized a set-aside program, which was never implemented for oats during this period, if the Secretary of Agriculture determined that supplies were likely to be excessive. The set asides were to be based on a percentage of the farmer's acreage planted for harvest in that year. Under the 1973 legislation, set asides were based on a percentage of allotment.

Programs of the 1980's

The Federal Crop Insurance Act of 1980 terminated most disaster payments, expanding the Federal Crop Insurance Program with subsidized payments instead. Additional price support was provided and the farmer-owned reserve was made more attractive. Loan rates to farmers in the reserve were raised above the regular loan rate. For example, the regular oats loan rate was \$1.16 per bushel and the reserve loan rate was \$1.23 per bushel. The regular corn loan rate was \$2.25 per bushel and the reserve loan rate was \$2.40 per bushel.

The Agriculture and Food Act of 1981 was prepared in a time of great concern over export embargoes, farm income, and the effect of price support policies on farm structure. The cost of the act was also a concern because of growing Federal deficits. Thus, a goal was to reduce the role and expense of Government in agriculture. The two-tiered system of target prices and loans was continued for designated crops, including oats for the first time, along with acreage controls and the farmer-owned reserve. The tie between target prices and inflation rates was broken and specific levels, lower than farm interests wanted, were mandated for each year, 1982-85. Target prices for oats were \$1.50 per bushel in 1982, increasing to \$1.60 by 1985. The act authorized the Secretary to raise target prices to meet rising production costs and to require farmers to place a certain percentage of a crop's base acreage into conservation uses in order to qualify for price and income supports. The act also gave the Secretary discretion to adjust interest charges and storage payments to encourage participation.

Legislation from 1982 and beyond was aimed at reducing feed grain supply, but oats supplies for most years were already at low levels. The 1982 feed grain crop had a voluntary acreage reduction program of 10 percent. For 1983 the oats crop had a 10-percent voluntary acreage reduction program and another 10-percent optional diversion program. USDA announced a payment-

in-kind program for the 1983 crop which provided an added incentive to reduce production with payments made in Government-owned commodities.

The trend to reduce the cost of price support programs continued with the Agricultural Programs Adjustment Act of 1984. That act froze 1985 target prices for feed grains, upland cotton, and rice at their 1984 levels. Acreage reductions for feed grains, including oats, was 10 percent.

The Food Security Act of 1985 was signed into law at a time when U.S. farm commodities were uncompetitive in the world market. Lagging exports contributing to mounting inventories and declining farm income became major factors in the farm sector's financial crisis. Objectives for the 1985 Act were to expand exports, protect farm income, and eventually reduce Federal outlays for farm programs as well as Government intervention in the agricultural sector. Despite these conflicting objectives, the apparent goals for the 1986 program were to lower market prices and expand exports, protect farm income with direct payments, and minimize budget outlays by using in-kind payments, if possible.

Many of the policy parameters contained in the 1981 Act were continued in the 1985 Act. However, the Secretary was granted considerably more discretion. For example, loan rates may be adjusted to achieve competitive conditions or repayment of price support loans may be less than the basic loan rate. Target prices under the 1985 Act remained constant in 1986 and 1987 for most commodities and were gradually lowered by about 10 percent during 1988-90. The Secretary retains discretionary power with acreage reduction programs and establishes acreage reduction program requirements each year within mandated limits. However, such programs become mandatory if stocks reach a certain level. Likewise, the act continues the farmer-owned reserve program, but sets both minimum and maximum entry levels.

The 1985 Act added several new facets in farm policy such as allowing the Secretary to set price support loan rates at levels to more closely reflect market prices, thereby allowing loan rates to respond to world supply and demand conditions. Loan rates for specified commodities may be repaid at existing market prices if these prices drop below loan rates. Also new is the conservation reserve program which was established to reduce erosion. This program will simultaneously reduce production potential because the cropland base could decrease 10 percent by 1990. The formulas for computing acreage bases and program yields were changed, reducing the relationship between production and eligibility for Government payments. The Secretary was given discretionary authority to institute advance recourse loans to producers for commodities with nonrecourse loans, further boosting a farmer's cash-flow.

Loan rates are adjusted annually to reflect market prices and may be lowered further if deemed necessary by the Secretary to make U.S. commodities competitive. For example, feed grain loan rates

for 1986-90 will be 75-85 percent of the previous average 5-year market price, excluding high and low years. The base rate cannot drop by more than 5 percent from the previous year. However, the Secretary has discretionary power to lower loan rates by up to 20 percent in 1986-90, if the previous marketing year's average price was not greater than 110 percent of that year's loan rate or if such action is necessary to regain a competitive market position.

Loan rates for oats are set at levels that the Secretary determines are fair and reasonable in relation to the loan rate for corn based on relative feed values of the two commodities. Loan rates for the 1986 crop of oats were set at \$0.99 per bushel and corn at \$1.92 per bushel, a difference reflecting the relative feed value.

Deficiency payments for oats have been the main income transfer mechanism since 1983, followed by either paid land diversion, reserve program storage payments, or disaster payments. Deficiency payments have become more important because target prices were frozen for 1986 and 1987 and loan rates and market prices declined in 1986. Although target prices were reduced slightly in 1988 and will continue to be reduced, sufficient target price protection remains for producers. The deficiency payment limit of \$50,000 per person is effectively increased because of added exemptions. These additions include loans and purchases, loan deficiency payments realized through the marketing loan provision, forgone loans in return for payments, additional deficiency payments due to an additional downward adjustment in loan rates, and inventory reduction payments. A maximum 5 percent of the total deficiency payments may be made in kind. Thus, Commodity Credit Corporation inventories have been reduced at no additional budget outlay by the Government.

Target prices for the 1989 crop of oats were set at \$1.50 per bushel, compared with \$2.84 per bushel for corn. The target price for oats, if designated by the Secretary, must be fair and reasonable in relation to the target price established for corn. Target prices for oats are also based on their feed value in relation to corn, about 51-52 percent of the price of corn. Some industry representatives claim that the oats target price should be raised because it is no longer a feed grain, but a specialty crop.

Cross-compliance requirements for oats were no longer required for the 1987 through 1989 feed grains programs. The waiving of cross-compliance requirements on oats provides farmers in other commodity programs with additional flexibility to plant oats.

In an effort to encourage additional oats production, the Omnibus Budget Reconciliation Act of 1987 directed the Secretary of Agriculture to establish a lower acreage reduction program requirement of no more than 5 percent for the 1988-90 crops of oats. With the barley acreage reduction program maintained at 20 percent in 1988 and 10 percent in 1989, the 5-percent oats ARP was intended to allow the market price for oats to compete with

the higher target price for barley. Although there was a slight shift in acreage from barley to oats in 1988, both barley and oats acreage fell as farmers either went into the conservation reserve program or planted soybeans.

The Drought Assistance Act of 1988 allows producers to plant any portion of their farm acreage base to oats in 1989 and 1990 if the feed grain acreage reduction program requirement is 12.5 percent or less of the crop acreage base. Additional plantings of oats will not alter a farm's existing base for other program crops in future years. This base protection provision provides wheat, corn, and sorghum producers with increased flexibility to plant oats in response to anticipated record oats prices.

Effects of Oats Programs

This section discusses the effects of Government programs on crop producers, processors, consumers, and public costs as well as some indirect effects.

Crop Producers

Government oats programs have generally supported producer prices and incomes through price supports or, more recently, through direct income payments (deficiency or diversion payments). Programs have contributed to the stability of producer prices through their orderly marketing features of the price support loan. Producers' price risk is generally minimized through participation in the oats program.

Government program participation rates for oats producers has been much lower than other commodities. For example, during the past 5 years, participation rates for oats producers ranged from 14-45 percent, compared to 54-90 percent for corn producers or 60-87 percent for wheat producers. Nonparticipants also benefit indirectly from supported market prices. Both participating and nonparticipating oats producers will benefit from the price-enhancing effects of the feed grain program.

Size of Program Payments

Although payments were permissible in 1982, market price strength precluded such payments in that year. U.S. oats farmers began receiving program payments (deficiency, diversion, disaster, and producer storage payments) in 1983 totaling \$14 million, consisting mostly of diversion and deficiency payments. These payments amounted to 3 cents per bushel of production or 4.2 percent of gross farm returns above cash expenses. Program payments in 1987 totaled \$17.3 million, 4.6 cents per bushel of production, or 6.5 percent of gross farm returns above cash expenses.

Distribution of Program Payments

Larger farms, although fewer in number, receive a larger share of the program benefits because they have the largest production (table 6). The distribution of 1983's program payments was estimated assuming program participation followed a pattern similar to 1982. Program benefits are likely to be proportional to participating acreage. As expected, the largest farms accounting for about one-third of the total number received 60 percent of the total payments. The smallest farms accounting for about 45 percent of the total number received only 19 percent of total payments. Oats producers with cropland of 1,500 acres or more, though accounting for only 5 percent of participating producers, received about 15 percent of total payments. Producers with less than 500 acres, although comprising two-thirds of participating producers, received only 40 percent of total payments.

Oats program payments are concentrated in the Plains and North Central regions based on reports from 1982 and 1987 (table 7). Regions with a larger participating base receive a larger share of program payments. Oats program payments closely follow the regional pattern of oats production, since payments are proportional to production. For example, payments concentrated in the Plains are expected because over half of the national oats base was located in the region. However, program payments might also have been more heavily concentrated in the region because

Table 6--Distribution of 1982/83 oats program participation by farm size

Size of farm	Percentage of--			
	Participating producers		Participating acreage	
<u>Acres</u>	<u>Pct.</u>	<u>Cum. pct.</u>	<u>Pct.</u>	<u>Cum. pct.</u>
Fewer than 70	12.1	12.1	2.3	2.3
70-139	14.7	26.8	5.4	7.7
140-219	13.3	40.1	7.3	15.0
220-259	5.2	45.3	3.6	18.6
260-499	22.1	67.4	21.0	39.6
500-999	20.5	87.9	29.8	69.4
1,000-1,499	6.9	94.8	13.8	83.2
1,500-1,999	2.6	97.4	6.0	89.2
2,000-2,499	1.1	98.5	3.0	92.2
2,500 and over	1.5	100.0	7.8	100.0

Source: U.S. Senate Committee on the Budget, 1982 Farm Program Benefits: Participants Reap What They Sow, 1985.

Table 7--Distribution of oats acreage base by region, 1982 and 1987

Share of Year/Region	Base	Participation base	Participation rate	Share of national Participation base
	- - <u>1,000 acres</u> - -		- - <u>Percent</u> - -	
1982:				
North Central	3,966.7	153.2	3.9	14.9
Plains	5,321.1	785.1	14.8	76.3
Northwest	139.1	24.5	17.6	2.4
Southwest	120.3	11.6	9.6	1.1
South	357.7	13.7	3.8	1.3
Northeast	453.0	40.8	9.0	9.9
Total	10,357.9	1,028.9	9.9	9.9
1987:				
North Central	2,944.8	599.0	20.3	15.8
Plains	4,559.7	2,809.8	61.6	74.5
Northwest	122.8	69.4	56.5	1.8
Southwest	97.0	40.6	46.5	1.1
South	366.5	142.0	38.7	3.8
Northeast	342.1	110.1	32.2	3.0
Total	8,433.0	3,770.9	44.7	100.0

Source: Calculated from data in: (1) U.S. Senate Committee on the Budget, 1982 Farm Program Benefits: Participants Reap What They Sow, 1985. and (2) U.S. Department of Agriculture, News: Final Compliance Figures for 1982 Reduced Acreage Program.

the rate of program participation in this region (15 percent for 1982 and 62 percent for 1987) was higher than the national average of 10 percent in 1982 and 44.7 percent in 1987.

Effects on Oats Production and Prices

Until 1982 and 1983, there had been no concerted effort on the part of the Federal Government to control oats production since oats supply was in line with consumption. The acreage reduction programs, however, have not always been effective. For example, 0.1 million acres of oats base were idled in 1982; however, harvested acreage actually went up from 9.4 million acres in 1981 to 10.6 million in 1982.

Although recent attention has been given to the need for additional oats production, producers of this short-supply crop are still required to reduce acreage in order to participate in the Government program. Between 1982 and 1988, acreage diverted from production ranged from 100,000 to 800,000 acres per year. And, the conservation reserve program claimed about 1 million

acres of oats base as of March 1989. One might question why oats is required to have an acreage reduction program when oats are in short supply.

Both the regular and reserve price support loan programs provide an orderly marketing mechanism that strengthens prices and reduces downward price risk. The program participants can receive a regular loan on their oats and pay back the principal plus interest or forfeit the grain. In times of tight cash flow, large surpluses, or strict credit qualifications by lending institutions, price support loans can be beneficial to farmers. The reserve loan can be even more attractive when reserve loan rates are higher than regular loan rates and at least part of the interest cost is waived (as was the case with the 1982 crop). Loan rates generally support prices, thereby minimizing the risk of lower prices. However, because farm prices of oats were much higher than their loan rates, oats loan rates had little effect on farm prices during most of 1972-88 (fig. 6).

Acreage reduction programs in conjunction with the operation of the farmer-owned reserve and the regular Commodity Credit Corporation loan programs tend to keep prices higher than they would be otherwise. Stocks placed in the farmer-owned reserve are not available to the market until oats prices reach release levels. The release level is equal to the target price of oats. In times of large oats production such as 1982/83, the operation of the loan program could reduce free stocks and raise prices above what they would be otherwise.

However, generic commodity certificates have tended to reduce oats prices. Generic commodity certificates can be used to release stocks under the 9-month loan program, the farmer-owned reserve, or CCC-owned inventory at any time for the posted county price. Although such action would tend to reduce market prices for oats, price-depressing effects have been minor because participation of oats producers in the price and income support program has not been very large.

Processors

The oats program has until recently generally contributed to an adequate supply of processing oats. The supply and demand situation for oats was generally balanced during 1950-87. The stocks-to-use ratio ranged from 25-42 percent (stocks equalled about 3-5 months of disappearance) except for the few times when supplies were tight such as during the early 1950's and late 1980's when the stocks-to-use ratio declined to a low of 23-25 percent. Supplies have been especially tight in the past several years as processors have had to rely, in part, on imports. Supplies were excessive in periods such as 1965, 1968-72, and 1977-78 when stocks-to-use ratios were equal to or greater than 43 percent (stocks equalled 5-8.5 months of disappearance), peaking at 70 percent in 1971.

However, since 1982, Government programs have created a competitive disadvantage for oats. For example, since the 1982

crop year, the Government program for oats assigned a common acreage base to oats and barley. Producers preferred to plant barley instead of oats because barley had higher net returns per acre due, in part, to a higher target price and a potentially larger deficiency payment. Large deficiency payments encourage producers to plant crops that are in surplus, such as corn, wheat, and barley, rather than crops in short supply such as oats. Finally, the 1985 Act tended to reduce oats production through the conservation reserve program, which has removed the least productive land from production. In many instances, this land was planted to oats prior to entry into the program.

The supply of U.S. oats has declined in recent years, market prices have increased, and processors have turned to imports. Food and feed processors must compete to acquire usable supplies. Consequently, oats prices are above the competitive level based on relative feeding value (about 51 percent of corn's price).

Consumers

Although feed grain programs provide benefits to feed grain producers, higher oats prices represent an increase in input costs that affect livestock producers, processors, and consumers of oats food products. Although the 1985 Act reduced loan rates, market prices remained significantly above the loan rate for most years.

Oats consumed as livestock feed is more responsive to a change in price than is oats consumed as food or specialty feed by the pleasure and race horse industry. Changes in feed use primarily reflect adjustments made by other livestock and poultry producers in response to prices and availability of oats and competing feed grains.

Program Activity and Costs

Government program activity for oats varies from price support loans to direct payments. Price support began in 1945 and has continued to the present. Government-owned stocks reached a peak during 1971 when the stocks-to-use ratio reached 70 percent and prices received by farmers declined to \$0.60 per bushel. These forfeitures occurred when the percentage of production that was put under price support loans reached 16 percent in 1969 and 12 percent in 1970, and prices failed to reach redemption value (table 8). The surge in export demand beginning in 1972/73 caused loan activity to decline as farmers redeemed their loans and sold their oats directly to the market. During the 1980's, the percentage of production put under price support loans was less than 2 percent.

During fiscal year 1987, total net CCC expenditures totaled \$17.1 million, compared with \$1.5 million in 1985 and \$103.7 million in 1970 (app. table 4). The first deficiency and diversion payments were made during fiscal year 1983 and totaled \$4.9 million.

Table 8--Oats: Price support operations, United States, 1953-88

Year			Put under support		Acquired	Owned
beginning	Loan	Farm		Percentage	by	by CCC
July 1	rate	price	Quantity	of production	CCC 1/	June 30
	<u>Dollars per bushel</u>		<u>Mil. bushels</u>	<u>Percent</u>		<u>Million bushels</u>
1953	0.80	0.72	56.0	4.9	43.5	15.6
1954	.75	.71	74.9	5.3	59.7	40.5
1955	.61	.60	69.1	4.6	36.3	58.5
1956	.65	.69	36.1	3.1	17.7	26.7
1957	.61	.61	61.8	4.8	42.9	26.7
1958	.61	.58	84.6	6.0	48.3	42.4
1959	.50	.65	8.3	.8	.1	14.5
1960	.50	.60	19.7	1.7	.5	9.0
1961	.62	.64	20.6	2.0	8.4	14.3
1962	.62	.62	32.0	3.2	19.0	17.1
1963	.65	.62	38.9	4.0	31.9	28.3
1964	.65	.63	44.9	5.3	25.1	42.2
1965	.60	.62	43.9	4.7	6.8	50.6
1966	.60	.67	22.7	2.8	6.5	47.8
1967	.63	.66	37.2	4.7	19.5	45.2
1968	.63	.60	94.9	10.1	35.6	54.2
1969	.63	.58	152.4	15.7	62.0	104.3
1970	.63	.62	108.8	11.9	26.6	168.9
1971	.54	.60	81.9	9.3	.7	178.1
1972	.54	.72	31.8	4.6	0	104.9
1973	.54	1.18	10.4	1.6	0	23.9
1974	.54	1.53	3.9	.6	0	5.8
1975	.54	1.45	3.9	.6	0	0
1976 <u>2/</u>	.72	1.56	4.6	.8	0	0
1977	1.03	1.09	82.9	11.0	0	0
1978	1.03	1.20	25.1	4.2	1.3	2.7
1979	1.08	1.36	12.0	2.2	.2	2.7
1980	1.16	1.79	6.3	1.4	0	2.3
1981	1.24	1.89	9.7	1.9	.4	.7
1982	1.31	1.49	9.2	1.5	.7	.6
1983	1.36	1.67	3.6	.8	.1	1.5
1984	1.31	1.69	3.2	.7	.1	1.4
1985	1.31	1.25	5.6	1.1	1.0	1.9
1986	.99	1.21	7.8	2.0	.1	3.0
1987	.94	1.56	2.9	.7	0	3.0
1988	.90	2.67	1.0	.5	0	2.5

^{1/} CCC = Commodity Credit Corporation.

^{2/} Beginning June 1, 1976, marketing year begins June 1.

Net Government expenditures for the oats program during 1982-87 were consistently low in relation to the other feed grains, wheat and soybeans. In fiscal year 1987, net expenditures for oats totaled \$17.1 million, compared with \$10.5 billion for corn. A smaller crop size and lower participation rates are major reasons for the low level of oats expenditures. Participation rates for the oats program were 14-45 percent during the past 5 years, compared with 54-90 percent for corn and 60-87 percent for wheat.

Deficiency, diversion, and storage payments totaled \$17.3 million in fiscal year 1987. Each participating farm received an average of \$159 in program payments, or nearly 5 cents per bushel of oats produced.

Indirect

Oats programs have also affected land value, resource use, and trade competition. Program benefits, particularly those associated with a base or allotment, are capitalized into the value of land. Landowners who were originally allocated a base or allotment benefit from an increase in both current income and wealth. Renters or tenants, who account for about 55 percent of farmers growing oats, receive a share of the current income, but they also face increased rents because of higher land values. Subsequent landowners have to pay a higher price for land. This dilutes the program benefits, particularly in the longer run, and also increases the subsequent cost of entry for new farmers. These effects became less pronounced when program participation was no longer tied to historical allotments. Farmers with 5 years of oats production records essentially can request the USDA's Agricultural Stabilization and Conservation Service to certify their base acreage for program participation.

Additional Readings

Gardner, P. H., G. W. Hoagland, and R. Kramer. 1982 Farm Program Benefits: Participants Reap What They Sow. U.S. Senate Committee on The Budget. 1985.

Green, Robert C. A Database for Support Programs of Program Crops: 1961-90. Staff Report (Forthcoming). U.S. Dept. Agr., Econ. Res. Serv.

Hoffman, Linwood A., and Janet Livezey. The U.S. Oats Industry. AER-573. U.S. Dept. Agr., Econ. Res. Serv., July 1987.

Hoffman, Linwood A., and Philip W. Sronce. Oats Imports, The U.S. Market, and Government Programs. Staff Report No. AGES870601. U.S. Dept. Agr., Econ. Res. Serv., Aug. 1987.

Leath, M. N., L. D. Hill, and S. W. Fuller. Oat Movements in the United States, Interregional Flow Patterns and Transportation Requirements in 1977. Ill. Bul. 769. Univ. of Ill., Jan. 1981.

Leath, M.N., and William Lin. Oats: Background for 1985 Farm Legislation. AIB-473. U.S. Dept. Agr., Econ. Res. Serv., Sept. 1984.

McElroy, Robert G., and Cole Gustafson. Costs of Producing Major Crops, 1975-81. ERS Staff Report No. AGES850329. U.S. Dept. Agr., Econ. Res. Serv., Apr. 1985.

Rasmussen, W., and G. L. Baker. Price-Support and Adjustment Programs From 1933 through 1978: A Short History. AIB-424. U.S. Dept. Agr., Econ. Stat. Coop. Serv., 1979.

Ryan, M. E., and M. Abel. "Oats and Barley Acreage Response to Government Programs," Agricultural Economics Research. 25: 105-114, No. 4, Oct. 1973.

U.S. Department of Agriculture. Farm Commodity and Related Programs. AH-345. Agr. Stab. Cons. Serv., 1967.

U.S. Department of Agriculture. Economic Indicators of the Farm Sector, Costs of Production, 1987. ECIFS 7-3. Econ. Res. Serv., Feb. 1989.

U.S. Department of Commerce, Bureau of the Census. 1982 Census of Agriculture. AC82-A-51. Vol. 1, Geographic Area Series, United States Summary and State data, Oct. 1984.

Glossary

Acreage reduction program (ARP) -- A voluntary land retirement system in which farmers must idle a portion of their base acreage; the remaining base acreage must be planted in the base crop. Farmers must participate to be eligible for benefits like Commodity Credit Corporation loans and deficiency payments.

Acreage slippage -- A measure of the effectiveness of acreage reduction programs. Slippage occurs when harvested acres change by less than the change in idled acres.

Advance deficiency payments -- The Secretary is required to make advance deficiency payments to producers of crops when an acreage limitation program is in effect and deficiency payments are expected to be paid. Advance deficiency payments can range from 30 to 50 percent of expected payments.

Advance recourse loans -- Price support loans made early in a marketing year to enable farmers to hold their crops for later sale. Farmers must repay the recourse loan with interest and reclaim the crops used as collateral.

Agricultural Stabilization and Conservation Service (ASCS) -- A USDA agency responsible for administering farm price support and income support programs and some conservation and forestry cost-sharing programs.

Basic commodities -- Six crops (corn, cotton, peanuts, rice, tobacco, and wheat) declared by legislation as price supported commodities.

Carryover -- Existing supplies of a farm commodity at the beginning of a new harvest.

Cash-out option for generic certificates -- The original holder of a generic commodity certificate has the option to redeem the certificate at its face value for cash from the Commodity Credit Corporation instead of exchanging it for commodities.

Census of Agriculture -- A survey taken by the Bureau of Census every 5 years to determine the number of farms, land in farms, crop acreage and production, farm spending, and so forth.

Coarse grains -- Includes corn, barley, oats, grain sorghum, and rye. Millet is also included in the statistics of some foreign nations.

Commodity Credit Corporation -- A federally owned and operated corporation within the U.S. Department of Agriculture created to stabilize, support, and protect farm income and prices through loans, purchases, payments, and other operations. All money transactions for agricultural price and income support and related programs are handled through the CCC; the CCC also helps maintain balanced, adequate supplies of agricultural commodities and helps in their orderly distribution.

Conservation reserve program (CRP) -- A major provision of the Food Security Act of 1985 designed to reduce erosion on 40-45 million acres of farmland. Under the program, producers who sign contracts agree to convert highly erodible cropland to approved conservation uses for 10 years. In exchange, participating producers receive annual rental payments and cash or in-kind payments to share up to 50 percent of the cost of establishing permanent vegetative cover.

Conserving uses -- Land idled from production and planted in a soil conserving crop. It excludes acreage (1) devoted to a crop of rice, upland or ELS cotton, feed grains, wheat, soybeans, peanuts, other program crops, or approved nonprogram crops; (2) required to be taken out of production under an acreage limitation program; and (3) designated under the conservation reserve program or other conservation programs.

Cost of production -- An amount, measured in dollars, of all purchased inputs, allowances for management, and rent, that is necessary to produce farm products. Cost of production statistics may be expressed as an average per-acre or per-bushel basis for all farms in an area or in the country.

Cover crop -- A close-growing crop grown primarily to protect and improve soil between periods of regular crops.

Crop failure -- Acreage on which crops were not harvested because of weather, insects, and diseases, but includes some land not harvested due to lack of labor, low market prices, or other factors.

Crop rotation -- The practice of growing different crops in recurring succession on the same land. Crop rotation plans are usually followed for the purpose of increasing soil fertility.

Crop year -- The year in which a crop is planted; used interchangeably with marketing year.

Cross compliance (full or strict) -- A requirement that a farmer participating in a program for one crop must also meet the program provisions for other major program crops which the farmer grows. Strict cross compliance provisions have not been enforced since the 1960s.

Cross compliance (limited) -- A producer participating in one commodity program must not plant in excess of the crop acreage base on that farm for any of the other program commodities for which an acreage reduction program is in effect. Limited cross-compliance authority was implemented in the late 1970's and remains in effect under the Food Security Act of 1985.

Decoupling -- A farm policy concept which, by separating farm program payments from the amount of production, would represent an alternative to current policies. Farmers would make planting

decisions based on market prices but receive income-support payments independent of production and marketing decisions.

Deficiency payment -- A Government payment made to farmers who participate in wheat, feed grain, rice, or cotton programs. The payment rate is per bushel, pound, or hundredweight, based on the difference between the price level established by law (target price) and the higher of the market price during a period specified by law or the price per unit at which the Government will provide loans to farmers to enable them to hold their crops for later sale (loan rate). The payment is equal to the payment rate multiplied by the acreage planted for harvest and then by the program yield established for the particular farm.

Direct payments -- Payments in the form of cash or commodity certificates made directly to producers for such purposes as deficiency payments, annual land diversion, or conservation reserve payments.

Disaster payments -- Federal aid provided to farmers for feed grains, wheat, rice, and upland cotton who have crop insurance (when available), when either planting is prevented or crop yields are abnormally low because of adverse weather and related conditions. Payments also may be made under special legislation enacted after an extensive natural disaster.

Farm acreage base -- The annual total of the crop acreage bases (wheat, feed grains, upland cotton, and rice) for a farm, the average acreage planted to soybeans, peanuts, and other approved nonprogram crops, and the average acreage devoted to conserving uses.

Farm act -- The omnibus agricultural legislation that expires every 4 or 5 years. The act's titles include program commodity titles, trade, conservation, credit, agricultural research, food stamps, and marketing.

Farmer-owned reserve (FOR) -- A program designed to provide protection against wheat and feed grain production shortfalls and provide a buffer against unusually sharp price movements. Farmers can place eligible grain in storage and receive extended loans for 3 years with extensions as warranted by market conditions. The loans are nonrecourse in that farmers can forfeit the commodity held as collateral to the Government without penalty and without paying accumulated interest in full settlement of the loan.

Federal crop insurance -- A subsidized insurance program which provides farmers with a means for risk management and financial stability against crop production loss.

Federal Crop Insurance Corporation (FCIC) -- A wholly owned Federal corporation within USDA that administers the Federal Crop Insurance Program.

Feed grains -- Any of several grains most commonly used for livestock or poultry feed, including corn, grain sorghum, oats, and barley.

Findley loan rates -- Originally proposed by Representative Paul Findley (R-IL), this provision was adopted in the Food Security Act of 1985. It gives the Secretary of Agriculture the discretionary authority to reduce the loan rate (price per unit at which the Government will provide loans to farmers to enable them to hold their crops for later sale) by up to 20 percent, if necessary, to make the commodity more competitive on the world market.

Food Security Act of 1985 (PL 99-198) -- The omnibus food and agriculture legislation signed into law on December 23, 1985, that provides a 5-year framework for the Secretary of Agriculture to administer various agriculture and food programs.

Generic commodity certificates -- Negotiable certificates, which do not specify a certain commodity, issued by USDA in lieu of cash payments to commodity program participants and sellers of agricultural products. The certificates, frequently referred to as payment-in-kind (PIK) certificates, can be used to acquire stocks held as collateral on Government loans or owned by the Commodity Credit Corporation.

Harvested acres -- Acres actually harvested for a particular crop. Usually somewhat smaller at the national level than planted acres because of abandonment due to weather damage or other disasters or market prices too low to cover harvesting costs.

Loan rate -- The price per unit (bushel, bale, or pound) at which the Government will provide loans to farmers to enable them to hold their crops for later sale.

Mandatory supply controls -- A mandatory supply control program would make it illegal for farmers to produce or sell to others more than specified amounts of certain commodities without penalty. All producers of any controlled commodity would be required to participate, with fines or other legal penalties used to enforce the restrictions.

Nonprogram crop -- Crops such as potatoes, vegetables, fruits, and hay that are not included in Federal price support programs.

Nonrecourse loans -- The major price support instrument used by the Commodity Credit Corporation (CCC) to support the price of feed grains, cotton, peanuts, and tobacco. Farmers who agree to comply with all commodity program provisions may pledge a quantity of a commodity as collateral and obtain a loan from the CCC. The borrower may elect either to repay the loan with interest within a specified period and regain control of the collateral commodity or default on the loan. In case of a default, the borrower forfeits without penalty the collateral commodity to the CCC.

Normal crop acreage -- The acreage on a farm normally devoted to a group of designated crops. When a set-aside program is in effect, the total of the planted acreage of the designated crops and the set-aside acreage cannot exceed the normal crop acreage. Producers must comply to be eligible for commodity loan programs or deficiency payments.

Normal yield -- A term designating the average historical yield established for a particular farm or area.

Offsetting compliance -- Requires that a producer participating in a diversion or acreage reduction program must not offset that reduction by planting more than the acreage base for that crop on another farm under the same management control.

Paid land diversion -- If the Secretary of Agriculture determines that planted acres for a program crop should be reduced, producers may be offered a paid voluntary land diversion. Farmers are given a specific payment per acre to idle a percentage of their crop acreage base. The idled acreage is in addition to an acreage reduction program.

Parity price -- Originally defined as the price which gives a unit of a commodity the same purchasing power today as it had in the 1910-14 base period. In 1948, the base prices used in the calculation were made dependent on the most recent 10-year average price for commodities.

Parity ratio -- A measure of the relative purchasing power of farm products; the ratio between the index of prices received by farmers for all farm products and the index of prices paid by farmers for commodities and services used in farm production and family living.

Payment-in-kind (PIK) -- A payment made to eligible producers in the form of an equivalent amount of commodities owned by the Commodity Credit Corporation.

Payment limitation -- The maximum amount of commodity program benefits a person can receive. A \$50,000 per person payment limitation was established in 1981 and applies to direct subsidy payments to wheat, feed grain, cotton, and rice producers. The law was amended in 1987 for the 1987 through 1990 crops to place a \$250,000 limit on total program payments.

Permanent legislation -- Legislation that would be in force in the absence of all temporary amendments and temporarily suspended provisions. The Agricultural Adjustment Act of 1938 and the Agricultural Act of 1949 serve as the principal laws authorizing the major commodity programs.

Permitted acreage -- The maximum acreage of a crop which may be planted for harvest. The permitted acreage is computed by multiplying the crop acreage by the permitted acreage percent

(announced by the Commodity Credit Corporation each year) minus the diversion acreage (if applicable).

PIK and roll -- A procedure by which producers attempt to profit from situations where certificate exchange values (posted county prices) are below nonrecourse loan rates. With this procedure, a producer places the eligible commodity under nonrecourse loan at the loan rate, and uses generic certificates to exchange the commodity out from under loan. If the posted county price is below the nonrecourse loan rate, then the producer is able to acquire the quantity placed under loan for less than the proceeds of the nonrecourse loan, in addition to saving interest and storage charges.

Prevented planting disaster payments -- Payments made to eligible producers to compensate them for being unable to plant any portion of the acreage intended for wheat, feed grains, rice, or upland cotton because of a natural disaster (drought or flood) or other condition beyond the producer's control.

Price support programs -- Government programs that aim to keep farm prices received by participating producers from falling below specific minimum prices.

Production controls -- Any Government program or policy intended to limit production. These have included acreage allotments, acreage reduction, set aside, and diverted acreage.

Program crops -- Federal support programs are available to producers of wheat, corn, barley, grain sorghum, oats, rye, extra long staple and upland cotton, rice, soybeans, tobacco, peanuts, and sugar.

Program yield -- The farm commodity yield of record determined by averaging the yield for the 1981-85 crops, dropping the high and low years. Program yields are constant for the 1986-90 crops. The farm program yield applied to eligible acreage determines the level of production eligible for direct payments to producers.

Reduced yield disaster payments -- Payments made to eligible producers to compensate them when, because of a natural disaster, the total quantity of wheat, feed grains, rice, or upland cotton they are able to harvest is less than 60 percent of the farm program yield times the acreage actually planted to the affected commodity.

Set aside -- A voluntary program to limit production by restricting the use of land. When offered, producers must participate to be eligible for Federal loans, purchases, and other payments.

Supply control -- The policy of changing the amount of acreage permitted to be planted to a commodity or the quantity of a commodity allowed to be sold by a program participant; used to maintain a desired carryover or price level.

Target price -- A price level established by law for wheat, feed grains, rice, and cotton. Farmers participating in the Federal commodity programs receive the difference between the target price and the higher of the market price during a period prescribed by law or the unit price at which the Government will provide loans to farmers to enable them to hold their crops for later sale (the loan rate).

0/92 -- An optional acreage diversion program that allows wheat and feed grain producers to devote all or a portion of their permitted acreage to conserving uses and receive deficiency payments on the acreage. The program will make deficiency payments for a maximum of 92 percent of a farm's permitted acreage.

50/92 -- Allows cotton and rice growers who plant at least 50 percent of their permitted acreage to receive 92 percent of their deficiency payments under certain conditions. The Farm Disaster Assistance Act of 1987 also authorized 50/92 for wheat, feed grain, cotton, and rice producers who were affected by a natural disaster in 1987 and met certain criteria stated in the law.

Appendix table 1--Acreage, yield, and production of oats, 1950-88

Year	Planted	Harvested	Diverted	Yield	Production
	- - - <u>Million acres</u> - - -			<u>Bushels/</u> <u>acre</u>	<u>Million</u> <u>bushels</u>
1950	45.0	39.3	0	34.8	1,369.2
1951	41.0	35.2	0	36.3	1,277.6
1952	42.3	37.0	0	32.9	1,217.4
1953	43.2	37.5	0	30.7	1,153.2
1954	46.9	40.6	0	34.8	1,409.6
1955	47.5	39.0	0	38.3	1,496.0
1956	44.2	33.3	0	34.5	1,151.4
1957	41.8	34.1	0	37.9	1,289.9
1958	37.7	31.2	0	44.8	1,401.4
1959	35.1	27.8	0	37.8	1,050.1
1960	31.4	26.6	0	43.4	1,153.3
1961	32.3	23.9	0	42.3	1,010.3
1962	29.5	22.4	0	45.2	1,012.2
1963	28.1	21.3	0	45.3	965.5
1964	25.6	19.8	0	43.1	852.3
1965	24.0	18.5	0.1	50.2	929.6
1966	23.3	17.9	0	44.9	803.3
1967	20.7	16.1	0	49.3	793.8
1968	23.3	17.7	0	53.7	950.7
1969	23.6	18.0	0	53.7	965.9
1970	24.4	18.6	0	49.2	915.2
1971	21.8	15.7	0	55.9	878.1
1972	20.0	13.4	0	51.5	690.6
1973	18.6	13.8	0	47.9	659.1
1974	17.0	12.6	0	47.6	600.7
1975	16.4	13.0	0	49.0	639.0
1976	16.6	11.8	0	45.7	540.4
1977	17.7	13.5	0	55.8	752.8
1978	16.4	11.1	0	52.3	581.7
1979	14.0	9.7	0	54.4	526.6
1980	13.4	8.7	0	53.0	458.8
1981	13.6	9.4	0	54.2	509.5
1982	14.0	10.3	.1	57.8	592.6
1983	20.3	9.1	.3	52.6	477.0
1984	12.4	8.2	.1	58.0	473.7
1985	13.3	8.2	.1	63.7	520.8
1986	14.7	6.9	.4	56.3	386.4
1987	18.0	6.9	.8	54.0	374.0
1988 ^{1/}	13.9	5.6	.5	39.1	218.8

^{1/} Preliminary.

Appendix table 2--Use and ending stocks for oats

Crop year <u>1/</u>	Feed	Food and seed	Exports	Total use	Ending stocks	Stocks- to-use ratio
- - - - - <u>Million bushels</u> - - - - -						<u>Percent</u>
1950	1,176	134	6	1,316	361	27
1951	1,209	140	5	1,354	341	25
1952	1,179	142	4	1,325	308	23
1953	1,101	151	4	1,256	285	23
1954	1,179	153	12	1,344	374	28
1955	1,278	146	30	1,454	421	29
1956	1,125	142	28	1,295	292	23
1957	1,056	133	27	1,216	391	32
1958	1,193	129	30	1,352	446	33
1959	1,009	121	46	1,176	322	27
1960	934	125	32	1,091	386	35
1961	930	119	16	1,065	334	31
1962	878	116	30	1,025	325	32
1963	815	110	6	931	363	39
1964	784	106	5	895	325	36
1965	742	105	34	881	378	43
1966	749	97	22	868	317	37
1967	686	101	11	798	316	40
1968	735	101	8	844	424	50
1969	736	104	5	845	548	65
1970	778	97	19	894	571	64
1971	740	94	21	855	597	70
1972	715	93	19	827	463	56
1973	669	89	57	815	308	38
1974	580	86	19	685	224	33
1975	558	87	14	659	205	31
1976	484	88	10	582	164	28
1977	509	85	12	606	313	52
1978	526	77	13	616	280	45
1979	492	75	4	571	236	41
1980	432	74	13	519	177	34
1981	453	76	7	536	152	28
1982	441	85	3	529	220	42
1983	471	73	2	546	181	33
1984	432	76	1	509	180	35
1985	460	82	2	544	184	34
1986	395	73	3	471	133	28
1987 <u>2/</u>	361	79	1	441	112	25
1988 <u>3/</u>	215	86	1	302	89	29

1/ Reflects June through May crop year.2/ Preliminary.3/ Projected as of March 9, 1989.

Appendix table 3--Prices and ending stocks for oats, 1950-88

Crop year 1/	Ending stocks				Price received	Loan rate	Target price	Direct payment 4/
	CCC 2/	FOR 3/	Free	Total				
- - - - Million bushels - - - -					- - - Dollars per bushel - - -			
1950	.9	--	352	361	0.79	0.71	--	--
1951	5	--	336	341	.82	.72	--	--
1952	13	--	295	308	.79	.78	--	--
1953	16	--	269	285	.74	.80	--	--
1954	41	--	333	374	.71	.75	--	--
1955	59	--	362	421	.60	.61	--	--
1956	27	--	265	292	.69	.65	--	--
1957	27	--	364	391	.61	.61	--	--
1958	42	--	404	446	.58	.61	--	--
1959	15	--	307	322	.65	.50	--	--
1960	9	--	377	386	.60	.50	--	--
1961	14	--	320	334	.64	.62	--	--
1962	17	--	308	325	.62	.62	--	--
1963	28	--	335	363	.62	.65	--	--
1964	42	--	283	325	.63	.65	--	--
1965	40	--	338	378	.62	.60	--	--
1966	43	--	274	317	.67	.60	--	--
1967	45	--	271	316	.66	.63	--	--
1968	47	--	377	424	.60	.63	--	--
1969	81	--	467	548	.58	.63	--	--
1970	143	--	428	571	.62	.63	--	--
1971	184	--	413	597	.60	.54	--	--
1972	158	--	305	463	.72	.54	--	--
1973	95	--	213	308	1.18	.54	--	--
1974	58	--	165	223	1.53	.54	--	--
1975	25	--	180	205	1.46	.54	--	--
1976	0	--	164	164	1.56	.72	--	--
1977	0	28	285	313	1.09	1.03	--	--
1978	3	39	238	280	1.20	1.03	--	--
1979	3	33	200	236	1.33	1.08	--	--
1980	2	0	175	177	1.72	1.16	--	--
1981	1	0	151	152	1.88	1.24	--	--
1982	1	5	214	220	1.49	1.31	1.50	--
1983	1	4	176	181	1.62	1.36	1.60	0.86
1984	1	3	176	180	1.67	1.31	1.60	0
1985	2	1	180	183	1.23	1.31	1.60	.29
1986	4	4	125	133	1.21	.99	1.60	.75
1987 5/	2	4	106	112	1.56	.94	1.60	1.00
1988 6/	2	0	87	89	2.67	.90	1.55	.30

-- = Not available to oats.

1/ Reflects June-May crop year.

2/ CCC = Commodity Credit Corporation.

3/ FOR = farmer-owned reserve.

4/ Includes deficiency and paid land diversion payments.

5/ Preliminary.

6/ Projected as of March 9, 1989.

Appendix table 4--Program costs for oats, 1961-87

Fiscal year	Deficiency	Diversion	Disaster	Export	Reseal loan or producer storage	CCC operating expenditures		
						Outlays	Redemption	Net
Million dollars								
1961	--	--	--	2.0	NA	19.4	8.6	10.8
1962	--	--	--	.2	1.9	17.1	14.9	2.2
1963	--	--	--	--	2.1	21.0	12.0	9.0
1964	--	--	--	--	2.4	29.6	6.7	22.9
1965	--	--	--	--	3.5	33.9	16.9	17.0
1966	--	--	--	--	4.6	37.2	19.5	17.7
1967	--	--	--	--	3.0	23.8	25.7	-1.9
1968	--	--	--	--	2.9	29.7	14.5	15.2
1969	--	--	--	--	4.4	65.2	13.0	52.2
1970	--	--	--	--	9.1	118.8	15.1	103.7
1971	--	--	--	--	15.8	112.1	37.6	74.5
1972	--	--	--	--	17.9	91.4	35.9	55.5
1973	--	--	--	--	11.9	47.1	106.1	-59.0
1974	--	--	--	--	6.6	24.1	110.8	-86.7
1975	--	--	--	--	.3	17.6	38.4	-20.8
1976	--	--	--	--	0	12.9	28.7	-15.8
TQ 1/	--	--	--	--	0	3.0	3.2	-.2
1977	--	--	--	--	0	50.0	7.7	42.3
1978	--	--	--	--	7.2	54.2	29.2	25.0
1979	--	--	--	--	6.2	23.0	33.6	-10.6
1980	--	--	--	--	2.7	15.1	27.9	-12.8
1981	--	--	--	--	-2.5	9.1	29.4	-20.3
1982	--	--	0.1	--	.4	10.6	12.1	-1.5
1983	1.6	3.3	.2	--	.8	15.0	3.7	11.3
1984	3.3	4.2	0	--	.3	13.6	9.2	4.4
1985	.1	0	0	--	.2	5.2	3.7	1.5
1986	17.2	0	0	--	.7	35.4	9.2	26.2
1987	14.6	1.7	0	--	1.0	46.9	31.8	17.1

NA = Not available.

-- = No payments.

1/ TQ is the transition quarter from July 1 to September 30, 1976, caused by the change in fiscal year starting dates.

Appendix table 5--Value comparisons for oats, 1950-88

Crop year	Loan value per acre		Market value per acre		Gross value product	
	Nominal 1/	Real 2/	Nominal 1/	Real 2/	Nominal 3/	Real 2/
----- Dollars -----				Million dollars		
1950	24.71	103.38	27.49	135.03	1,081.67	4,525.81
1951	26.14	104.13	29.77	118.59	1,047.63	4,173.83
1952	25.66	100.64	25.99	101.93	961.75	3,771.55
1953	24.56	94.83	22.72	97.71	853.37	3,294.86
1954	26.10	99.24	24.71	93.95	1,000.82	3,805.38
1955	23.36	85.89	22.98	84.49	897.60	3,300.00
1956	22.43	79.80	23.81	84.72	794.47	2,827.28
1957	23.12	79.45	23.12	79.45	786.84	2,703.91
1958	27.33	92.01	25.98	87.49	812.81	2,736.74
1959	18.90	62.17	24.57	80.82	682.56	2,245.26
1960	21.70	70.23	26.04	84.27	691.98	2,239.42
1961	26.23	84.06	27.07	86.77	646.49	2,072.41
1962	28.02	87.65	28.02	87.85	627.56	1,967.29
1963	29.45	90.88	28.09	86.69	598.61	1,847.56
1964	28.02	85.15	27.15	82.53	536.95	1,632.06
1965	30.12	89.11	31.12	92.08	576.35	1,705.18
1966	26.94	76.97	30.08	85.95	538.21	1,537.75
1967	31.06	86.52	32.54	90.64	523.91	1,459.35
1968	33.83	89.74	32.22	85.46	570.42	1,513.05
1969	33.83	85.00	31.15	78.26	560.22	1,407.59
1970	31.00	73.80	30.50	72.63	567.42	1,351.01
1971	30.19	67.99	33.54	75.54	526.86	1,186.62
1972	27.81	59.81	37.08	79.74	497.23	1,069.32
1973	25.87	52.25	56.52	114.19	777.74	1,571.19
1974	25.70	47.60	72.83	134.87	919.07	1,701.98
1975	26.46	44.62	71.54	120.64	932.94	1,573.25
1976	32.90	52.15	71.29	112.98	843.02	1,336.01
1977	57.47	85.40	60.82	90.37	820.55	1,219.25
1978	53.87	74.91	62.76	86.93	698.04	966.81
1979	58.75	74.75	72.35	92.05	700.51	891.24
1980	61.48	71.74	91.16	106.37	789.14	920.81
1981	67.21	71.50	101.90	108.40	957.86	1,019.00
1982	75.72	75.72	86.12	86.12	882.97	882.97
1983	71.54	68.85	85.21	82.01	772.74	743.73
1984	75.98	70.55	98.86	89.94	791.08	734.52
1985	83.45	75.24	78.35	70.65	640.58	576.06
1986	55.74	48.94	68.12	59.81	467.54	409.77
1987	50.10	42.56	83.15	70.64	583.13	495.44
1988 4/	35.19	28.92	104.40	85.78	584.20	480.03

1/ Loan rate or average farm price times yield per harvested acre.

2/ GNP implicit price deflator (1982=100) was used.

3/ Production times average farm price.

4/ Projection as of March 9, 1989.

Appendix table 6--World production, consumption, exports, and ending stocks for oats, 1960-88

Crop year 1/	Production	Consumption	Exports 2/	Ending stocks	Stocks- to-use
- - - - - 1,000 metric tons - - - - -				Percent	
1960/61	57,786	56,416	1,189	8,454	15.0
1961/62	49,989	51,637	1,537	6,768	13.1
1962/63	49,565	48,335	1,319	8,201	17.0
1963/64	46,659	45,583	1,205	9,068	19.9
1964/65	43,503	45,144	1,472	8,080	17.9
1965/66	45,730	45,015	1,636	8,847	19.7
1966/67	47,772	48,831	1,270	7,700	15.8
1967/68	49,976	50,254	1,148	7,158	14.2
1968/69	53,470	50,210	1,130	10,534	21.0
1969/70	54,175	52,443	936	12,289	23.4
1970/71	54,069	53,848	1,908	12,635	23.5
1971/72	56,295	55,938	1,969	12,943	23.1
1972/73	50,058	53,725	1,654	9,469	17.6
1973/74	52,882	54,652	1,871	7,376	13.5
1974/75	49,440	50,596	1,109	6,200	12.3
1975/76	47,098	47,312	1,291	5,875	12.4
1976/77	48,906	49,062	1,539	5,782	11.8
1977/78	51,594	49,111	1,377	8,226	16.7
1978/79	51,566	51,552	1,601	7,996	15.5
1979/80	45,494	47,104	1,445	6,484	13.0
1980/81	44,551	45,507	1,290	4,861	11.3
1981/82	41,818	41,865	1,178	4,662	10.9
1982/83	48,357	46,564	1,077	6,140	13.8
1983/84	45,983	46,729	1,535	5,177	11.1
1984/85	48,391	47,957	1,832	5,464	11.4
1985/86	50,053	50,209	1,460	5,218	10.4
1986/87	47,480	48,258	1,407	4,293	8.9
1987/88	45,387	45,931	1,538	3,593	7.8
1988/89 3/	43,420	44,220	1,610	3,170	7.2

NA = Not available.

1/ Based on aggregate of differing local marketing years.

2/ Includes intra-EC trade; July/June before 1979/80; thereafter, October/September.

3/ Preliminary.

Appendix table 7--World production, trade, and ending stocks of oats, world and United States, 1960-88

Crop year	Production			Exports			Ending stocks		
	World	United States	U.S. share	World	United States	U.S. share	World	United States	U.S. share
	<u>Million bushels</u>		<u>Percent</u>	<u>Million bushels</u>		<u>Percent</u>	<u>Million bushels</u>		<u>Percent</u>
1960	3,981.1	1,153.3	29.0	82.0	26.9	32.8	614.5	324.5	52.8
1961	3,443.9	1,010.3	29.3	102.0	18.6	18.2	498.1	276.2	55.5
1962	3,414.7	1,012.2	29.6	82.0	23.4	28.6	596.6	272.8	45.7
1963	3,214.4	965.1	30.0	93.0	4.8	5.2	656.5	312.1	47.5
1964	2,996.7	852.2	28.4	92.3	4.1	4.5	540.1	325.2	60.2
1965	3,150.3	930.0	29.5	105.4	33.1	31.4	593.1	378.2	63.8
1966	3,290.9	803.3	24.4	91.6	20.0	21.8	513.9	316.9	61.7
1967	3,443.1	794.3	23.1	79.2	6.2	7.8	501.5	316.2	63.0
1968	3,683.5	950.7	25.8	76.5	3.4	4.5	734.4	423.7	57.7
1969	3,732.4	965.8	25.9	72.3	1.4	1.9	854.9	547.7	64.1
1970	3,724.9	916.2	24.6	126.4	15.8	12.6	879.0	571.1	65.0
1971	3,877.8	885.2	22.6	130.9	20.0	15.3	902.5	597.3	66.2
1972	3,448.6	690.3	20.0	104.0	15.2	14.6	663.4	463.6	69.9
1973	3,643.3	659.3	18.1	133.0	55.8	42.0	518.7	307.2	59.2
1974	3,405.2	600.7	17.6	77.8	19.3	24.8	427.1	223.9	52.4
1975	3,244.7	635.9	19.6	97.8	13.8	14.1	405.1	205.3	50.7
1976	3,368.7	540.1	16.0	106.8	10.3	9.7	398.2	164.0	41.2
1977	3,554.7	753.0	21.2	91.6	11.0	12.0	566.3	313.8	55.2
1978	3,552.6	581.4	16.4	108.8	13.1	12.0	551.1	279.7	50.7
1979	3,133.8	527.0	16.8	103.3	4.1	4.0	422.3	236.3	56.0
1980	2,995.3	458.8	15.3	86.8	13.1	15.1	356.8	177.0	49.6
1981	2,881.0	509.8	17.7	81.3	6.9	8.5	340.3	152.2	44.7
1982	3,334.5	592.4	17.8	74.4	4.1	5.6	438.8	219.8	50.1
1983	3,168.2	475.3	15.0	105.4	2.8	2.6	375.4	180.5	48.1
1984	3,328.1	474.0	14.2	126.1	1.4	1.1	396.1	179.8	45.4
1985	3,426.6	520.8	15.2	100.6	2.1	2.1	372.7	183.9	49.4
1986	3,275.7	386.5	11.8	91.6	2.8	3.0	307.2	133.0	43.3
1987	2,993.2	374.1	12.5	102.0	1.4	1.4	275.6	112.3	40.7
1988	2,991.2	254.9	8.5	110.9	1.4	1.2	218.4	86.1	39.4

Appendix table 8--World oats trade, stocks, and consumption,
1960-88

Crop year	World trade to world consumption	World stocks to world consumption	U.S exports to foreign consumption
<u>Percent</u>			
1960	2.1	15.8	1.0
1961	3.0	14.0	.7
1962	2.7	18.0	1.0
1963	2.6	20.8	.2
1964	3.3	17.3	.2
1965	3.6	19.2	1.6
1966	2.6	15.2	.7
1967	2.3	14.5	.2
1968	2.3	21.3	.1
1969	1.8	23.7	0
1970	3.5	23.8	.6
1971	3.5	23.4	.8
1972	3.1	18.0	.7
1973	3.4	13.7	1.9
1974	2.2	12.2	.4
1975	2.7	12.4	.5
1976	3.1	11.8	.2
1977	2.8	16.7	.5
1978	3.1	15.5	.1
1979	3.1	13.0	.1
1980	2.8	11.7	.5
1981	2.8	11.8	.3
1982	2.3	13.7	.2
1983	3.3	11.7	.1
1984	3.8	12.0	<u>1/</u>
1985	2.9	10.8	.1
1986	2.8	9.2	.1
1987	3.4	9.1	.1
1988	3.6	7.2	.1

1/ Less than 0.1 percent.

Appendix table 9--Oats production and exports, major foreign exporters and total foreign, 1960-88

Crop year	Argentina		Oceania		Canada		EC-12		Total foreign	
	Production	Exports	Production	Exports	Production	Exports	Production	Exports	Production	Exports
Million bushels										
1960	57.9	14.5	95.1	24.8	423.7	2.8	693.0	5.5	2,827.9	55.1
1961	48.2	25.5	68.9	19.3	301.7	3.4	662.7	6.9	2,433.2	83.4
1962	33.8	5.5	86.1	14.5	524.4	23.4	691.7	11.0	2,402.2	58.6
1963	62.7	29.6	85.4	21.4	474.0	19.3	675.1	10.3	2,249.2	88.3
1964	55.8	26.9	87.5	20.2	368.6	15.8	618.6	14.5	2,144.5	88.2
1965	33.1	8.3	75.8	19.3	425.0	15.8	602.1	17.9	2,220.3	71.6
1966	37.2	11.0	133.6	29.6	398.2	4.1	621.4	14.5	2,488.3	71.0
1967	47.5	23.4	49.6	9.0	320.3	4.1	703.4	22.7	2,648.8	73.0
1968	33.8	11.0	117.8	25.5	378.9	2.8	662.7	15.8	2,732.8	72.3
1969	29.6	15.8	86.1	15.2	376.8	6.9	653.1	25.5	2,766.6	71.0
1970	24.8	9.6	110.9	38.6	375.4	12.4	559.4	20.0	2,809.3	110.2
1971	33.1	8.3	88.2	21.4	386.5	11.0	666.9	21.4	3,000.1	110.9
1972	39.3	12.4	51.0	4.1	319.0	6.9	616.6	24.8	2,757.6	88.9
1973	38.6	15.8	76.5	21.4	349.3	.7	577.3	27.6	2,984.3	77.2
1974	22.7	2.8	59.9	19.3	274.2	1.4	606.9	15.8	2,804.5	59.2
1975	29.8	68.9	78.5	28.9	308.6	19.3	584.2	19.3	2,605.4	84.0
1976	36.5	13.8	73.7	19.3	332.7	33.8	447.8	15.8	2,829.3	96.4
1977	39.3	25.5	68.2	13.1	296.2	6.2	480.8	18.6	2,801.7	115.0
1978	46.8	6.9	121.2	30.3	249.4	.7	605.5	28.9	2,970.5	95.8
1979	35.8	48.2	97.1	35.8	205.3	6.9	529.1	24.1	2,607.5	99.9
1980	29.6	9.0	77.8	12.4	208.7	3.4	524.2	22.0	2,537.2	74.4
1981	23.4	4.1	111.6	9.6	219.8	3.4	493.9	17.9	2,371.2	74.4
1982	44.1	6.9	58.6	5.5	250.8	6.9	534.6	19.3	2,739.0	70.3
1983	40.6	5.5	158.4	26.2	191.5	8.3	387.2	14.5	2,691.5	103.3
1984	42.0	6.9	94.4	24.1	177.7	1.4	504.3	26.9	2,854.8	125.4
1985	27.6	4.1	91.6	10.3	188.8	2.8	509.8	24.8	2,905.8	98.5
1986	27.6	2.8	107.5	15.2	223.9	17.2	363.0	15.8	2,889.2	88.9
1987	44.8	21.4	128.1	20.7	206.7	20.7	365.1	13.1	2,619.9	100.6
1988	48.2	24.1	144.7	17.2	199.8	17.2	396.8	12.4	2,736.3	110.2

Appendix table 10--Coefficients of variation for oats ^{1/}

Period	Harvested acres	Yield	Production	Exports	Price received	Value of production
1950-83	0.4753	0.1639	0.3250	0.7575	0.4421	0.2162
1954-63	.2132	.0997	.1529	.4170	.0630	.1576
1964-73	.1189	.0759	.1195	.7450	.2439	.1234
1974-83	.1494	.0701	.1459	.4879	.1555	.1021
1954-58	.1000	.0975	.0880	.2502	.0837	.0963
1959-63	.1008	.0641	.0611	.5307	.0267	.0459
1964-68	.0667	.0789	.0740	.6546	.0391	.0412
1969-73	.1331	.0564	.1504	.7178	.3012	.1564
1974-78	.0690	.0715	.1161	.2211	.1371	.1004
1979-83	.0676	.0382	.1087	.5555	.1190	.1036
1984-88	.1349	.1544	.2622	.4617	.3192	.1748

^{1/} Coefficient of variation is a measure of variability which equals the standard deviation divided by the mean.

Appendix table 11--Provisions of oat programs, 1961-90

Provision	1961	1962	1963	1964
Parity price (\$/bu) 1/	0.84	0.85	0.85	0.84
Target price (\$/bu)	--	--	--	--
Deficiency payment: 2/				
Advance payment (\$/bu)	--	--	--	--
Final payment (\$/bu)	--	--	--	--
Allocation factor (%) 3/	--	--	--	--
Nonrecourse loan:				
Basic rate (\$/bu) 4/	0.62	0.62	0.65	0.65
Effective rate (\$/bu) 5/	--	--	--	--
CCC domestic sales price: 6/				
Legislated minimum (\$/bu) 7/	0.65+CC	0.65+CC	0.68+CC	0.68+CC
Actual (\$/bu) 8/	--	--	--	--
Farmer-owned reserve:				
Loan level (\$/bu)	--	--	--	--
Release level (\$/bu)	--	--	--	--
Call level (\$/bu)	--	--	--	--
Storage payment (\$/bu)	--	--	--	--
Immediate entry	--	--	--	--
Feed grain ceiling (mil bu)	--	--	--	--
Feed grain floor (mil bu)	--	--	--	--
Acreage diversion (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage diversion optional (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction voluntary (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
PIK acreage diversion (%)	--	--	--	--
Payment rate (bu)	--	--	--	--
Payment (bu)	--	--	--	--
Compliance restrictions:				
Soil conserving base 9/	Yes	Yes	Yes	Yes
Cross compliance 10/	11/ Yes	12/ Yes	No	No
Offsetting compliance 14/	No	No	No	Yes
Normal crop acreage 15/	--	--	--	--
National base acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
Barley-oat	--	--	--	--
Oat base in CRP	--	--	--	--
National program acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
National program yield (bu/ac)	--	--	--	--
Disaster program: 16/				
Prevented plantings payment (\$/bu)	--	--	--	--
Low yield criterion (%)	--	--	--	--
Low yield payment (\$/bu)	--	--	--	--
Payment limitation (\$)	--	--	--	--
Advanced payment (%)	--	--	--	--
Support payment limitation (\$)	--	--	--	--

See footnotes at end of table.

Continued--

Appendix table 11--Provisions of oat programs, 1961-90--Continued

Provision	1965	1966	1967	1968
Parity price (\$/bu) 1/	0.86	0.87	0.88	0.89
Target price (\$/bu)	--	--	--	--
Deficiency payment: 2/				
Advance payment (\$/bu)	--	--	--	--
Final payment (\$/bu)	--	--	--	--
Allocation factor (%) 3/	--	--	--	--
Nonrecourse loan:				
Basic rate (\$/bu) 4/	0.60	0.60	0.63	0.63
Effective rate (\$/bu) 5/	--	--	--	--
CCC domestic sales price: 6/				
Legislated minimum (\$/bu) 7/	0.63+CC	0.63+CC	0.66+CC	0.66+CC
Actual (\$/bu) 8/	--	--	--	--
Farmer-owned reserve:				
Loan level (\$/bu)	--	--	--	--
Release level (\$/bu)	--	--	--	--
Call level (\$/bu)	--	--	--	--
Storage payment (\$/bu)	--	--	--	--
Immediate entry	--	--	--	--
Feed grain ceiling (mil bu)	--	--	--	--
Feed grain floor (mil bu)	--	--	--	--
Acreage diversion (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage diversion optional (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction voluntary (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
PIK acreage diversion (%)	--	--	--	--
Payment rate (bu)	--	--	--	--
Payment (bu)	--	--	--	--
Compliance restrictions:				
Soil conserving base 9/	Yes	Yes	Yes	Yes
Cross compliance 10/	13/ No	13/ No	17/ No	17/ No
Offsetting compliance 14/	Yes	Yes	No	No
Normal crop acreage 15/	--	--	--	--
National base acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
Barley-oat	--	--	--	--
Oat base in CRP	--	--	--	--
National program acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
National program yield (bu/ac)	--	--	--	--
Disaster program: 16/				
Prevented plantings payment (\$/bu)	--	--	--	--
Low yield criterion (%)	--	--	--	--
Low yield payment (\$/bu)	--	--	--	--
Payment limitation (\$)	--	--	--	--
Advanced payment (%)	--	--	--	--
Support payment limitation (\$)	--	--	--	--

See footnotes at end of table.

Continued--

Appendix table 11--Provisions of oat programs, 1961-90--Continued

Provision	1969	1970	1971	1972
Parity price (\$/bu) 1/	0.94	0.95	0.97	0.99
Target price (\$/bu)	--	--	--	--
Deficiency payment: 2/				
Advance payment (\$/bu)	--	--	--	--
Final payment (\$/bu)	--	--	--	--
Allocation factor (%) 3/	--	--	--	--
Nonrecourse loan:				
Basic rate (\$/bu) 4/	0.63	0.63	0.54	0.54
Effective rate (\$/bu) 5/	--	--	--	--
CCC domestic sales price: 6/				
Legislated minimum (\$/bu) 7/	0.66+CC	0.66+CC	0.57+CC	0.57+CC
Actual (\$/bu) 8/	0.88	0.82	0.77	0.89
Farmer-owned reserve:				
Loan level (\$/bu)	--	--	--	--
Release level (\$/bu)	--	--	--	--
Call level (\$/bu)	--	--	--	--
Storage payment (\$/bu)	--	--	--	--
Immediate entry	--	--	--	--
Feed grain ceiling (mil bu)	--	--	--	--
Feed grain floor (mil bu)	--	--	--	--
Acreage diversion (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage diversion optional (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction voluntary (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
PIK acreage diversion (%)	--	--	--	--
Payment rate (bu)	--	--	--	--
Payment (bu)	--	--	--	--
Compliance restrictions:				
Soil conserving base 9/	Yes	Yes	Yes	Yes
Cross compliance 10/	17/ No	17/ No	No	No
Offsetting compliance 14/	No	No	No	No
Normal crop acreage 15/	--	--	--	--
National base acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
Barley-oat	--	--	--	--
Oat base in CRP	--	--	--	--
National program acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
National program yield (bu/ac)	--	--	--	--
Disaster program: 16/				
Prevented plantings payment (\$/bu)	--	--	--	--
Low yield criterion (%)	--	--	--	--
Low yield payment (\$/bu)	--	--	--	--
Payment limitation (\$)	--	--	--	--
Advanced payment (%)	--	--	--	--
Support payment limitation (\$)	--	--	--	--

See footnotes at end of table.

Continued--

Appendix table 11--Provisions of oat programs, 1961-90--Continued

Provision	1973	1974	1975	1976
Parity price (\$/bu) 1/	1.10	1.24	1.44	1.59
Target price (\$/bu)	--	--	--	--
Deficiency payment: 2/				
Advance payment (\$/bu)	--	--	--	--
Final payment (\$/bu)	--	--	--	--
Allocation factor (%) 3/	--	--	--	--
Nonrecourse loan:				
Basic rate (\$/bu) 4/	0.54	0.54	0.54	0.72
Effective rate (\$/bu) 5/	--	--	--	--
CCC domestic sales price: 6/				
Legislated minimum (\$/bu) 7/	0.57+CC	0.62+Adj+CC	0.78+Adj+CC	0.87+Adj+CC
Actual (\$/bu) 8/	1.39	1.74	1.71	None
Farmer-owned reserve:				
Loan level (\$/bu)	--	--	--	--
Release level (\$/bu)	--	--	--	--
Call level (\$/bu)	--	--	--	--
Storage payment (\$/bu)	--	--	--	--
Immediate entry	--	--	--	--
Feed grain ceiling (mil bu)	--	--	--	--
Feed grain floor (mil bu)	--	--	--	--
Acreage diversion (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage diversion optional (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction voluntary (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
PIK acreage diversion (%)	--	--	--	--
Payment rate (bu)	--	--	--	--
Payment (bu)	--	--	--	--
Compliance restrictions:				
Soil conserving base 9/	Yes	Yes	Yes	No
Cross compliance 10/	No	No	No	No
Offsetting compliance 14/	No	No	No	No
Normal crop acreage 15/	--	--	--	--
National base acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
Barley-oat	--	--	--	--
Oat base in CRP	--	--	--	--
National program acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
National program yield (bu/ac)	--	--	--	--
Disaster program: 16/				
Prevented plantings payment (\$/bu)	--	--	--	--
Low yield criterion (%)	--	--	--	--
Low yield payment (\$/bu)	--	--	--	--
Payment limitation (\$)	--	--	--	--
Advanced payment (%)	--	--	--	--
Support payment limitation (\$)	--	--	--	--

See footnotes at end of table.

Continued--

Appendix table 11--Provisions of oat programs, 1961-90--Continued

Provision	1977	1978	1979	1980
Parity price (\$/bu) 1/	1.76	1.90	2.15	2.32
Target price (\$/bu)	--	--	--	--
Deficiency payment: 2/				
Advance payment (\$/bu)	--	--	--	--
Final payment (\$/bu)	--	--	--	--
Allocation factor (%) 3/	--	--	--	--
Nonrecourse loan:				
Basic rate (\$/bu) 4/	1.03	1.03	18/ 1.03/1.08	1.16
Effective rate (\$/bu) 5/	--	--	--	--
CCC domestic sales price: 6/				
Legislated minimum (\$/bu) 7/	1.55	1.55	1.62	1.74
Actual (\$/bu) 8/	None	None	None	None
Farmer-owned reserve:				
Loan level (\$/bu)	1.03	1.03	18/ 1.03/1.08	19/ 1.16/1.23
Release level (\$/bu)	1.29	1.29	18/ 1.29/1.35	1.45
Call level (\$/bu)	1.44	1.44	18/ 1.44/1.57	1.62
Storage payment (\$/bu)	0.19	0.19	0.19	0.20
Immediate entry	No	No	No	No
Feed grain ceiling (mil bu)	No	No	No	No
Feed grain floor (mil bu)	No	No	No	No
Acreage diversion (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage diversion optional (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage reduction voluntary (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
PIK acreage diversion (%)	--	--	--	--
Payment rate (bu)	--	--	--	--
Payment (bu)	--	--	--	--
Compliance restrictions:				
Soil conserving base 9/	No	No	No	No
Cross compliance 10/	No	20/ Yes	20/ Yes	No
Offsetting compliance 14/	No	21/ Yes	21/ Yes	No
Normal crop acreage 15/	--	--	--	--
National base acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
Barley-oat	--	--	--	--
Oat base in CRP	--	--	--	--
National program acres (mil):				
Feed grain	--	--	--	--
Oat	--	--	--	--
National program yield (bu/ac)	--	--	--	--
Disaster program: 16/				
Prevented plantings payment (\$/bu)	--	--	--	--
Low yield criterion (%)	--	--	--	--
Low yield payment (\$/bu)	--	--	--	--
Payment limitation (\$)	--	--	--	--
Advanced payment (%)	--	--	--	--
Support payment limitation (\$)	--	--	--	--

See footnotes at end of table.

Continued--

Appendix table 11--Provisions of oat programs, 1961-90--Continued

Provision	1981	1982	1983	1984
Parity price (\$/bu) 1/	2.62	2.80	2.95	3.09
Target price (\$/bu)	--	1.50	1.60	1.60
Deficiency payment: 2/				
Advance payment (\$/bu)	--	0.00	0.075	--
Final payment (\$/bu)	--	0.00	0.11	0.00
Allocation factor (%) 3/	--	22/ NA	22/ NA	22/ NA
Nonrecourse loan:				
Basic rate (\$/bu) 4/	1.24	1.31	1.36	1.31
Effective rate (\$/bu) 5/	--	--	--	--
CCC domestic sales price: 6/				
Legislated minimum (\$/bu) 7/	1.63	1.82	1.82	1.82
Actual (\$/bu) 8/	None	2.07	1.89	2.04
Farmer-owned reserve:				
Loan level (\$/bu)	23/ 1.31	24/ 1.49	25/ 1.36	1.31
Release level (\$/bu)	23/ 1.55	24/ 1.65	25/ 1.65	1.65
Call level (\$/bu)	23/ 1.55	--	--	--
Storage payment (\$/bu)	0.20	0.20	0.20	0.20
Immediate entry	No	Yes	No	No
Feed grain ceiling (mil bu)	No	No	No	Could be
Feed grain floor (mil bu)	No	No	No	No
Acreage diversion (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
Acreage diversion optional (%)	--	--	10	--
Payment rate (\$/bu)	--	--	0.75	--
Payment (\$)	--	--	0.75*Yld*Div	--
Acreage reduction (%)	--	10	10	10
Payment rate (\$/bu)	--	Def	Def	Def
Payment (\$)	--	0.00*Yld*Plt	0.11*Yld*Plt	0.00*Yld*Plt
Acreage reduction voluntary (%)	--	--	--	--
Payment rate (\$/bu)	--	--	--	--
Payment (\$)	--	--	--	--
PIK acreage diversion (%)	--	--	27/	--
Payment rate (bu)	--	--	--	--
Payment (bu)	--	--	--	--
Compliance restrictions:				
Soil conserving base 9/	--	--	--	--
Cross compliance 10/	--	No	No	No
Offsetting compliance 14/	--	No	No	No
Normal crop acreage 15/	--	22/ NA	22/ NA	22/ NA
National base acres (mil):				
Feed grain	--	119.9	120.5	120.6
Oat	--	10.4	10.1	9.8
Barley-oat	--	20.8	--	21.4
Oat base in CRP	--	--	--	--
National program acres (mil):				
Feed grain	--	22/ NA	22/ NA	22/ NA
Oat	--	22/ NA	22/ NA	22/ NA
National program yield (bu/ac)	--	45.0	47.0	53.0
Disaster program: 16/				
Prevented plantings payment (\$/bu)	--	28/ 0.50	28/ 0.53	28/
Low yield criterion (%)	--	--	--	--
Low yield payment (\$/bu)	--	28/ 0.75	28/ 0.80	28/
Payment limitation (\$)	--	29/ 100,000	29/ 100,000	29/ 100,000
Advanced payment (%)	--	No	50	No
Support payment limitation (\$)	--	30/ 50,000	31/ 50,000	32/ 50,000

See footnotes at end of table.

Continued--

Appendix table 11--Provisions of oat programs, 1961-90--Continued

Provision	1985	34/ 1986	1987	1988
Parity price (\$/bu) 1/	3.04	2.85	2.77	2.84
Target price (\$/bu)	1.60	1.60	1.60	1.55
Deficiency payment: 2/				
Advance payment (\$/bu)	0.00	0.18	0.22	0.12
Final payment (\$/bu)	0.29	0.39	0.20	0.30
Allocation factor (%) 3/	22/ NA	22/ NA	22/ NA	22/ NA
Nonrecourse loan:				
Basic rate (\$/bu) 4/	1.31	1.23	1.17	1.13
Effective rate (\$/bu) 5/	--	0.99	0.94	0.90
CCC domestic sales price: 6/				
Legislated minimum (\$/bu) 7/	1.82	1.82	1.76	1.71
Actual (\$/bu) 8/	2.04	2.05	2.10	2.08
Farmer-owned reserve:				
Loan level (\$/bu)	1.31	0.99	0.94	0.90
Release level (\$/bu)	1.65	1.65	1.60	1.55
Call level (\$/bu)	--	--	--	--
Storage payment (\$/bu)	0.20	0.20	0.20	0.20
Immediate entry	No	No	No	35/ No
Feed grain ceiling (mil bu)	26/ Could be	36/ Yes	36/ Yes	Yes
Feed grain floor (mil bu)	No	No	No	No
Acreage diversion (%)	--	2.5	--	--
Payment rate (\$/bu)	--	0.36	--	--
Payment (\$)	--	0.36*Yld*Div	--	--
Acreage diversion optional (%)	--	--	15	--
Payment rate (\$/bu)	--	--	0.80	--
Payment (\$)	--	--	0.80*Yld*Div	--
Acreage reduction (%)	10	17.5	20	5
Payment rate (\$/bu)	Def	Def	Def	Def
Payment (\$)	0.29*Yld*Plt	0.39*Yld*Plt	0.20*Yld*Plt	0.30*Yld*Plt
Acreage reduction voluntary (%)	--	37/ 50-92 rule	37/ 50-92 rule	38/ 0-92 rule
Payment rate (\$/bu)	--	Def	Def	Def
Payment (\$)	--	0.359*Yld*Pmt	0.184*Yld*Pmt	0.276*Yld*Pmt
PIK acreage diversion (%)	--	--	--	--
Payment rate (bu)	--	--	--	--
Payment (bu)	--	--	--	--
Compliance restrictions:				
Soil conserving base 9/	--	--	--	--
Cross compliance 10/	No	No	39/ Limited	39/ Limited
Offsetting compliance 14/	No	No	No	No
Normal crop acreage 15/	22/ NA	22/ NA	22/ NA	22/ NA
National base acres (mil):				
Feed grain	126.2	122.3	119.8	120.1
Oat	9.4	9.2	8.4	7.9
Barley-oat	22.7	21.9	20.9	--
Oat base in CRP	--	0.1	0.5	0.9
National program acres (mil):				
Feed grain	22/ NA	22/ NA	22/ NA	22/ NA
Oat	22/ NA	22/ NA	22/ NA	22/ NA
National program yield (bu/ac)	47.0	40/ 50.0	40/ 50.0	40/ 50.0
Disaster program: 16/				
Prevented plantings payment (\$/bu)	28/	28/	28/	28/
Low yield criterion (%)	--	--	--	--
Low yield payment (\$/bu)	28/	28/	28/	28/
Payment limitation (\$)	29/ 100,000	29/ 100,000	41/ Yes	41/ Yes
Advanced payment (%)	No	42/ 40/100	43/ 40/50	44/ 40/100
Support payment limitation (\$)	33/ 50,000	46/ 50,000	47/ 50,000	47/ 50,000

See footnotes at end of table.

Continued--

Appendix table 11--Provisions of oat programs, 1961-90--Continued

Provision	1989	1990
Parity price (\$/bu) 1/	--	--
Target price (\$/bu)	1.50	--
Deficiency payment: 2/		
Advance payment (\$/bu)	0	--
Final payment (\$/bu)	0	--
Allocation factor (%) 3/	22/ NA	22/ NA
Nonrecourse loan:		
Basic rate (\$/bu) 4/	1.06	--
Effective rate (\$/bu) 5/	0.85	--
CCC domestic sales price: 6/		
Legislated minimum (\$/bu) 7/	1.65	--
Actual (\$/bu) 8/	--	--
Farmer-owned reserve:		
Loan level (\$/bu)	0.85	--
Release level (\$/bu)	1.50	--
Call level (\$/bu)	--	--
Storage payment (\$/bu)	0.20	--
Immediate entry	35/ No	--
Feed grain ceiling (mil bu)	Yes	--
Feed grain floor (mil bu)	No	--
Acreage diversion (%)	--	--
Payment rate (\$/bu)	--	--
Payment (\$)	--	--
Acreage diversion optional (%)	--	--
Payment rate (\$/bu)	--	--
Payment (\$)	--	--
Acreage reduction (%)	5	--
Payment rate (\$/bu)	Def	--
Payment (\$)	0.00*Yld*Plt	--
Acreage reduction voluntary (%)	38/ 0-92 rule	--
Payment rate (\$/bu)	Def	--
Payment (\$)	0.00*Yld*Pmt	--
PIK acreage diversion (%)	--	--
Payment rate (bu)	--	--
Payment (bu)	--	--
Compliance restrictions:		
Soil conserving base 9/	--	--
Cross compliance 10/	39/ Limited	39/ Limited
Offsetting compliance 14/	No	No
Normal crop acreage 15/	22/ NA	22/ NA
National base acres (mil):		
Feed grain	119.1	--
Oat	7.6	--
Barley-oat	--	--
Oat base in CRP	1.0	--
National program acres (mil):		
Feed grain	22/ NA	22/ NA
Oat	22/ NA	22/ NA
National program yield (bu/ac)	40/ 50.0	--
Disaster program: 16/		
Prevented plantings payment (\$/bu)	28/	28/
Low yield criterion (%)	--	--
Low yield payment (\$/bu)	28/	28/
Payment limitation (\$)	41/ Yes	41/ Yes
Advanced payment (%)	45/ 40	40
Support payment limitation (\$)	47/ 50,000	47/ 50,000

Footnotes for appendix table 11--Provisions of oat programs, 1961-90.

- 1/ Average parity price of oats for May.
- 2/ Deficiency payment is the difference between the target price and the higher of the 5-month national weighted average market price received by farmers or the loan rate. Starting in 1986, a supplementary (loan) deficiency payment was authorized as the difference between the basic loan rate and the higher of the adjusted loan rate or the national weighted average market price received by farmers for the entire marketing year.
- 3/ The allocation factor, ranging from 80 to 100, is determined by dividing national program acres by number of acres harvested.
- 4/ Before the 1985 legislation, this is the national average loan rate. Under the 1985 Act, this is the basic loan rate as determined by the legislated formula.
- 5/ This is the loan rate after adjustment by the Secretary as authorized by the 1985 Act in order to make U.S. feed grains competitive in export markets.
- 6/ Sales made at fixed prices or through competitive bids.
- 7/ In any event, the CCC can not sell stockholdings for less than the going market price.
- 8/ Simple average of actual sales.
- 9/ Producers must maintain a soil conserving base in addition to planting diverted acres to conserving use.
- 10/ Producers must be in compliance with programs for all program crops planted to the farm.
- 11/ Producers must comply with the corn and sorghum program.
- 12/ Producers must comply with either the corn-sorghum program or the barley program.
- 13/ Eligibility for price support does not require participation in the 1965 feed grain program unless producers want to establish an oat-rye base so they can substitute wheat on their oat-rye acreage.
- 14/ Producers must be in compliance with feed grain program requirements on other farms they own or have an interest in.
- 15/ The total acres of crops in the normal crop acreage -- barley, corn, dry edible beans, flax, oats, rice, rye, sorghum, soybeans, sugarbeets, sugar cane, sunflowers, upland cotton, and wheat -- planted on a farm plus acres set-aside cannot exceed a farm's normal crop acreage.
- 16/ Bad weather or unavoidable hazard.
- 17/ If producers have an oat-rye base and sign up for both wheat and feed grain programs, they can substitute wheat for oat-rye, but they cannot substitute corn, sorghum, or barley for oat-rye.
- 18/ Announced before (Reserve I)/announced following the suspension of exports to the Soviet Union (Reserve II).
- 19/ Announced before Reserve (III)/announced following passage of Agricultural Act of 1980 on December 3, 1980 (Reserve III).
- 20/ Cross compliance requires farmers to comply with set aside and normal crop acreage requirements for all crops in order to become eligible for program benefits on any crop in the farms' normal crop acreage.
- 21/ Off-setting compliance requires that to qualify for program benefits for crops included in the normal crop acreage on participating farms, landlords, landowners, and operators must assure that the normal crop acreage is not exceeded on any nonparticipating farms they own or operate that produce a set-aside crop.
- 22/ Normal crop acres, national program acres, allocation factors, and voluntary reduction provisions are not applicable when acreage reduction programs are in effect.
- 23/ Grain entered after October 6 (Reserve IV).
- 24/ Grain entered during 1982 marketing year (Reserve V), as announced January 29, 1982.
- 25/ Grain entered during 1983 marketing year (Reserve V).
- 26/ If a cap was imposed, it could not have been less than 1 million bushels of feed grains.
- 27/ In 1983, the feed grain payment-in-kind program option was not made available to oat acreage.
- 28/ Available only to producers for whom Federal crop insurance is not available.
- 29/ Limit to disaster payments per person for all programs.
- 30/ Total amount of payments a person can receive under a combination of feed grain, wheat, rice, and upland cotton programs. The limitation does not apply to loans or purchases.
- 31/ Total amount of payments a person can receive under a combination of feed grain, wheat, rice, and upland cotton programs. The limitation does not apply to loans, purchases, or payments-in-kind.
- 32/ Total payments, including payments-in-kind, a person can receive under a combination of feed grain, wheat, rice, upland cotton, and extra-long staple cotton programs. The limitation does not apply to loans or purchases.
- 33/ Total payments a person can receive under a combination of feed grain, wheat, rice, upland cotton, and extra-long staple cotton programs. The limitation does not apply to loans or purchases.
- 34/ All cash payments subject to reduction of 4.3 percent, Gramm-Rudman-Hollings Act.
- 35/ When 9-month loans mature, entry into the farmer-owned reserve will be permitted only if reserve quantities of grain fall below 450 million bushels and farm prices do not exceed 140 percent of the current loan rate.
- 36/ If the quantity of feed grains in the farmer-owned reserve exceeds 7 percent of established feed grain usage for the crop year, entry of the feed grain crop into the reserve will not be permitted.
- 37/ Under the 50/92 rule, growers who plant between 50 and 92 percent of the permitted acreage to feed grains and devote the remaining permitted acres to a conserving use are eligible to receive deficiency payments on 92 percent of the permitted acreage.
- 38/ Under the 0/92 rule, growers who plant between 0 and 92 percent of the permitted acreage to feed grains and devote the remaining permitted acres to a conserving use are eligible to receive deficiency payments on 92 percent of the permitted acreage.
- 39/ To be eligible for benefits for a participating wheat, feed grain, upland cotton, or rice crop, the farmer's acreage planted for harvest (or approved as prevented plantings) on a farm on other nonparticipating program crops, excluding extra-long staple cotton and oats, may not exceed the crop acreage bases of those crops. Oats and extra-long staple cotton are not subject to limited cross-compliance requirements.
- 40/ Average of the program payment yields for 1981-85 crops, excluding the high and the low.

41/ The total of the following payments, combined with the total deficiency and diversion payments, is limited to \$250,000 per person: (1) disaster payments; (2) any gain realized by repayment of a loan at a lower level than the original loan level; (3) any deficiency payment for wheat or feed grains attributed to a reduction in the statutory loan rate; (4) any loan deficiency payment; (5) any inventory reduction payment; and (6) any payment representing compensation for resource adjustment or public access for recreation.

42/ At signup, participants may request 40 percent (75 percent in cash and 25 percent in generic certificates) of their projected 1986 deficiency payments and 100 percent of their diversion payments. A second advance was authorized in August 1986 permitting participants to request an additional 10 percent of their projected deficiency payments in generic certificates.

43/ At signup, participants may request 40 percent (50 percent in cash and 50 percent in generic certificates) of their projected 1987 deficiency payments and 50 percent (50 percent in cash and 50 percent in generic certificates) of their diversion payments.

44/ At signup, participants may request 40 percent (50 percent in cash and 50 percent in generic certificates) of their projected 1988 deficiency payments and 100 percent (100 percent in generic certificates) of their diversion payments.

45/ At signup, participants may request 40 percent of their projected 1989 deficiency payments.

46/ Total deficiency and diversion payments a person can receive under a combination of the feed grain, wheat, rice, upland cotton, and extra-long staple cotton programs. The limitation does not apply to loans, purchases, loan deficiency payments, first handler certificates, inventory protection certificates, or deficiency payments resulting from lowering the basic (statutory) loan rate.

47/ Total deficiency and diversion payments a person can receive under the wheat, feed grain, upland cotton, extra-long staple cotton, and rice programs.

Source: Green, Robert C. A Database for Support Programs of Program Crops, 1961-90. Staff Report (forthcoming). U.S. Dept. Agr., Econ. Res. Serv.

UNITED STATES DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE
1301 NEW YORK AVENUE, NW.
WASHINGTON, DC 20005-4788